

UNIVERSITY OF RAJASTHAN
JAIPUR

SYLLABUS

M.SC. Home Science

- (i) ⇒ Human Development & Family
(ii) ⇒ Foods & Human Nutrition
(iii) ⇒ Development Communication & Extension

Semester Scheme

I/II Semester Examination	2016-2017
III/IV Semester Examination	2017-2018

Prepared by
Dr. ...
Jaipur

Human Development and Family

(i)

M.Sc. HOME SCIENCE
HUMAN DEVELOPMENT AND FAMILY

M.Sc. HOME SCIENCE
First Semester Examination, 2016-December

Scheme of Examination:

1. Each theory paper EoSE shall carry 100 marks. The EoSE will be of 3 hours duration. Part 'A' of the theory paper shall contain 10 Short Answer Questions of 20 marks, based on knowledge, understanding and applications of the topics/texts covered in the syllabus. Each question will carry two marks for correct answer.
2. Part "B" of paper will consist of four questions as suggested below except in cases where a different scheme is specified in the syllabus.
 - First question will contain 6 parts out of which 4 to be answered carrying weightage of 5 mark each. Word limit for each answer will be 50-70 words.
 - There shall be 3 questions (with internal choice) of 20 marks each. The word limit for each answer will be 1000 words.
3. Each laboratory EoSE will be of four/six hours duration and involve laboratory experiments/exercise and viva-voce examination with weightage in ratio of 75:25.

Course Structure:

The details of the courses with code, title and the credits assigned are as given below.

Abbreviations used:

Course category:

CCC: Compulsory Core Course

ECC: Elective Core Course

SSECC: Self Study Elective Core Course

SSCCC: Self Study Compulsory Core Course

DIS: Dissertation

Contact hours

L: Lecture

T: Tutorial

P: Practical

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FIRST SEMESTER

S. No.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			EoSE Duration (Hrs.)	
					L	T	P	Thy	P
1.	HDF 701	History and Theories of Human Development – I	CCC	4	4	0	0	3	0
2.	HDF 702	Foundations of Human Development -I	CCC	4	4	0	0	3	0
3.	HDF 703	Early Childhood Care and Education	CCC	4	4	0	0	3	0
4.	HDF 711	Early Childhood Care and Education	CCC	6	0	0	9	0	4
5	HDF AO1	Research Methodology	ECC	4	4	0	0	3	0
6.	HDF AO2	Life Span Development-I	ECC	4	4	0	0	3	0
7	HDF A11	Skill Training in Development of Children	ECC	4	0	0	6	0	4
8	HDF A12	Innovative and Creative Skills in Children	ECC	4	0	0	6	0	4
9	HDF A13	Approaches to Human Study	ECC	2	0	0	3	0	4
				36					

CCC (18), ECC(18)

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FIRST SEMESTER

HISTORY AND THEORIES OF HUMAN DEVELOPMENT-1 (THEORY)

Paper Code: HDF 701

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives :

1. To acquaint the students with the basic knowledge and concepts of theories on personality and socialization.
2. Help students gain insights into understanding complex psychological influences.

Contents :

Unit-I

1. Historical perspectives and the trends in theoretical and empirical approaches to child/human study and its relevance for pedagogy, psychotherapy and Intervention programmes.
2. Principles, basic concepts, critique, implications and comparative analysis of the following theories:-
 - Psycho-analytic theory of Sigmund Freud
 - Psycho-social theory of Erik Erikson
 - Carl-Jung's theory of personality

Unit-II

3. Principles, basic concepts, critique, implications and comparative analysis of the following theories: - Theories by Neo-Freudians
 - Karen Horney
 - Harry Stack Sullivan
 - Eric Fromm
 - Anna Freud

Unit-III

4.
 - Allport's theory of personality
 - Adler's theory
 - Maslow's theory of Self-actualization

References :

1. Klem, M.D. and White, J.M. (1996) Family Theories: An introduction, Sage Publications. New Delhi.
2. Valsiner, J (2000) Culture and Human Development. Sage. London.
3. Gilligan, C. (1982). In a different voice: Psychological Theory and Women's Development: Harvard University Press. Cambridge.
4. Armstrong, K. (2005). A short History of Myth. Penguin Books Ltd. London.
5. Kessen, W. (1983) Handbook of Child Psychology, Vol. I: History, Theory and methods (4th ed.). John Wiley and Sons. New York.

(3)

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[Name]

6. Baldwin, A.L. (1980): Theories of child development (2nd Ed.) John Wiley & Sons. New York.
7. Hall Gardner Lindzey John B. Campbell (2007). Theories Of. Personality 4th Edition, Publisher: Wiley India Pvt Ltd.

FOUNDATIONS OF HUMAN DEVELOPMENT (THEORY)

Paper Code: HDF 702

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

1. To enable students to understand the principles and processes of genetic reproduction, causes and characteristics of genetic Anomalies
2. To understand recent advances, importance of critical period, growth and human development.

Contents:

UNIT-I

1. Principle of Human Development
2. Basic of Human Development: Genes and Chromosomes, Heredity and Environment, Meaning and Interactions of Heredity and Environment, Chromosomal Anomalies, Recent Advances in Genetics, Genetics counseling.

UNIT -II

3. Basic themes in Human Development
 - a) Active Vs Passive organism
 - b) Continuity Vs Discontinuity in development
 - c) Learning Vs Maturation
 - d) Cognition Vs Language
4. Early Environment, (critical period): Experiments and Research. Effect of early stimulation and deprivation.

UNIT -III

5. Stages of prenatal development, prematurity and low birth weight babies. Factors Affecting Growth and Development.
6. Birth process and complications, technological advances in prenatal monitoring and care-sonography, amniocentesis, surrogacy, stem cell, test tube babies, and other recent advances.

References :

(4)

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1. Narang D; Khunteta B & Koradia K (2009). Early child care and stimulation, Pointer publishers, Jaipur.
2. Santrock, J. W. (1983). Life Span Development. Wm. C. Brown Publishers, Dubuque, Iowa.
3. Stewart, Clarke, A., Friedman, S. (1987). Child Development: Infancy through Adolescence. John Wiley and Sons, New York.
4. Papalia, D.E., Olds, S.W. and Feldman, R.D. (2004). Human Development (9th Ed). Tata McGraw- Hill Publishing Company Ltd. New Delhi.
5. Berk, L.E. (2004). Development Through the Lifespan (3rd Ed). Pearson Education, Inc. New Delhi.

EARLY CHILDHOOD CARE AND EDUCATION (THEORY)

Paper Code: HDF 703

Credits: 4

Max. Marks: 100

Teaching Hours: 4 hours/week

Total Teaching Workload: 60 hours/semester

Objectives :

1. To gain knowledge and insight regarding early childhood care and education.
2. To develop the skills and techniques to plan activities and implement in ECCE Centres i.e. crèches and day-care centres, preschool and anganwadi centres.
3. To gain knowledge and skills of positive discipline, behaviour modification and role of special educator.
4. The students will also learn to evaluate ECCE centers.

Unit I

1. Need and importance of early childhood care and education (ECCE)
2. Goals of ECCE: Theoretical and empirical perspectives.
3. Significance of early stimulation and learning for School Readiness.
4. Effective Teaching and Learning Strategies in ECCE. Different Curriculum models in ECCE

Unit II

5. Developmentally appropriate curriculum/programme (DAC/DAP) and Program planning. Principles of planning, long and short term planning, small group and large group planning; Selection of activities and teachers' role to facilitate learning of different concepts such as language, Rhythm, Mathematics, Science, 3R's, Sensory experiences.
6. Organizational Set Up: Preschool building, site and location, plans for various types, learning centers, space allotment for Indoor and outdoor play.
 - a) Criteria of selection of Preschool staff and their qualifications

Characteristics of a quality ECCE Program.

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Unit III

7. Planning of developmentally appropriate ECCE activities: Goals, significance, objectives, criteria.
8. Safety education and issues in care of children.
9. Records and Registers: Values, types and maintenance, Report Writing and Evaluation of Children and ECCE programs.

References:

1. Kaul, V. (2002) Early Childhood care and education. In Govinda R. (Ed.) India Education Report: A profile of Basic Education (23-24) National Institute of Educational Planning and Administration: Oxford University Press. New Delhi.
2. Sharma, M. A. (1993) Current Issues in Early Childhood care and Education. In T.S. Saraswati and B. Kaul (Eds.) Human Development and family studies in India: An Agenda for Research and Policy. Sage. New Delhi
3. Cleghorn, A. & Prochner, L. (2003). Contrasting visions of childhood: Examples from early childhood settings in Zimbabwe and India. *Journal of Early Childhood Research*, Sage, New Delhi.
4. Raut, S. Vyas, R. Sigh, A and Tiwari, J. (2006) Art Education: Teacher's Handbook for Classes VII and VIII .NCERT. New Delhi.
5. Anandlakshmy, S. (1989) Crèches in Delhi. Lady Irwin College, University of Delhi.
6. David, T. (1999) Teaching Young Children. Sage Publication. New Delhi.
7. Swaminathan, M. (ed.) (1998). The First Five Years: A Critical Perspective on Early Childhood Care Education in India. Sage Publication. New Delhi.
8. Narang D; Purohit S & Koradia K (2008). Early childhood care and development, Shivam Book Depot, Jaipur.

EARLY CHILDHOOD CARE AND EDUCATION (Practical)**Paper Code: HDF 711****Credits: 6****Max. Marks: 100****Teaching Hours: 3 practicals/week (3 hours/practical)****Total Teaching Workload: 45 practicals /semester****Objectives :**

1. To develop the skills and plan and implement activities in ECCE Centres i.e. crèches and day-centres, preschool and anganwadi centres.
2. The students will also learn to evaluate ECCE centres.

Contents :

1. Visits to various centres of early childhood care and education (ECCE).
2. Planning Programme and activities for Children's all round Development: Preparing Teaching Aids.
3. Arranging of learning centres to facilitate learning of different concepts.
4. Placement and Observation in different Early Childhood Education and Day Care Centres.
5. Organising Parent Teacher Meets, Celebration of festivals/functions, workshops and open house for parent involvement.
6. Planning of nutritional supplements for preschool children.

RESEARCH METHODOLOGY (THEORY)

Paper Code : HDF A01

Credits: 4

Max. Marks : 100

Teaching Hours : 4 Hours/Week

Total Teaching Workload: 60 Hours/Semester

Objectives :

1. To understand the basic concepts of research methodology.
2. To be able to understand the various steps of research methods.
3. To enable the students to understand various research designs, sampling techniques, methods of collecting data.
4. To enable the students to prepare and present report for dissertation purpose.

Contents:

UNIT- I

1. Research purpose and objectives.
2. Definition and Identification of research problem, selection of problem, hypotheses, basis assumption and limitation of problem.
3. Review of literature: Importance, sources and writing review of literature.
4. Research designs: Purpose and types.

UNIT-II

5. Technique of sampling- Census and sampling methods, probability and non-probability sampling procedures, sample size.
6. Data gathering instruments, measurements and scales, reliability and validity of measuring instruments- Questionnaire, Schedule, Score card, Checklist.
7. Methods of collecting data: Questionnaire, interview technique, observation, case study, focus group discussion.

UNIT-III

8. Planning, executing and analysis of large scale surveys with special emphasis of surveys in Home Science.
9. Presentation and preparation of report for dissertation publication.
10. Bibliography: Importance of method of writing references of book, journals, proceedings and websites.

References :

1. Simpson, George, Kafka, Fritz. Basic statistics: a textbook for the first course , Oxford and IBH Publishers, New Delhi, 1977.
2. Taro Y. Sampling Theory, Prentice-Hall Publishers, New Delhi, 1967.
3. Snedecor and Cochran, Statistics Methods, Oxford and I.B.H. Publishers, Calcutta, 1968.
4. Gupta SP. Statistics Methods, Sultan Chand and Co., New Delhi, 2008.
5. Good CV and Carter DE. Methods of Research-Educational Psychological Application, Century Craft, New York, 1954.

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6. Kerlinger FA. Foundation of Behavioral Research, Century Craft, New York, 1966.
7. Young PV and Schind CG. Scientific Social Survey and Research, Prentice Hall, New Delhi, 1968.
8. Philips BS. Social Research, Strategy and Tactics, MacMillan, New York, 1976.
9. Mussed P. Hand book of Research Methods in Child Development, John Wiley & Sons Inc, 1960.
10. Devdas RP and Kulandaivel. Hand Book of Research Methodology, Sri Ram Krishna mission Vidhyalaya, 1971. Krishnaswamy RP. Methodology of Research in Social Sciences, 1st edition, Himalaya Publishing house, Mumbai, 1993.

LIFE SPAN DEVELOPMENT – 1 (THEORY)

Paper Code: HDF AO2

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours/Semester

Objectives :

1. To acquaint students regarding the prenatal developmental processes and prenatal and neonatal assessment.
2. To help students gain an understanding of the growth and development from infancy to late childhood.

Contents:

UNIT-I

1. **Infancy:**

- Developmental tasks/ milestones
- The Neonate (Birth to 4 weeks) –Reflexes, Physical, Physiological, Sensory
- Perceptual Capabilities.
- 4 weeks up to 2 years: Physical and Motor, Social, Emotional, Language and
- Cognitive Development.

UNIT –II

2. **Early Childhood Years**

- Physical and Motor Development, and Handedness, Emotional and Social
- Development, Cognitive, Language and Moral Development of Children in Early
- Childhood Years.

3. **Middle and Late Childhood Years**

- Physical and Motor Development, Emotional and Social development, Cognitive, Language and Moral Development of children in Middle Childhood Years.

Unit- III

4. **Adolescence: Development and Challenges**

- Characteristic of pubertal changes.
- Period of Storm and Stress; Physical changes, Hormonal and Physiological changes,

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- Growth spurt, Individual Differences and Early versus Late Maturation. Reproductive and
- Sexual Development.
- Social Development of Adolescents, Significance of Peers and Family; Heterosexual
- Attractions, Homosexuality, Parent – Child relationships and Discipline/freedom.
- Understanding Adolescents' Emotional, Cognitive and Moral Development.

References :

1. Narang D; Chabra N&Koradia K (2010).Adolescent girls: awareness rights and reproductive health, Pointer publishers, Jaipur
2. Moorjani J; Narang D&Manika (2009).Bal Vikas Ka Manovigyan, ShriKavitaPrakashan, Jaipur
3. Stewart, Clarke, A., Friedman, S. (1987). Child Development: Infancy through Adolescence. John Wiley and Sons, New York.
4. Santrock, J. W. (1983). Life Span Development. Wm. C. Brown Publishers, Dubuque, Iowa.
5. Freiberg, K. L. (1992). Human Development: A Life Span Approach. Jones and Bartlet Publishers, London.
6. Papalia, D.E., Olds, S.W. and Feldman, R.D. (2004). Human Development (9th Ed). Tata McGraw- Hill Publishing Company Ltd. New Delhi.
7. Berk, L.E.(2004). Development through the Lifespan (3rd Ed). Pearson Education, Inc. New Delhi.
8. Bhatt, N. (2007). Human Development- A Lifespan Perspective. Aavishkar Publishers. Jaipur
9. Ricc, F.P. (1992). Human Development: A Lifespan Approach. Prentice Hall. New Jersey
10. Shaffer , D,R. and Kipp, K.(2007). Developmental Psychology: Childhood and Adolescence(7th Ed). Thompson Wadsworth. Australia
11. Saraswathi, T.S.(2003).Cross-Cultural perspectives in Human Development: Theory, Research and Applications. Sage Publications. New Delhi:

SKILL TRAINING IN DEVELOPMENT OF CHILDREN (PRACTICAL)

Paper Code: HDF A11

Credits: 4

Max. Marks: 100

Teaching Hours: 2 Practicals/Week (3 Hours/Practical)

Total Teaching Workload: 30 Practicals/Semester

Objectives :

1. To acquaint student to gain knowledge regarding the development processes during neonatal period.
2. To help students gain understanding of the assessment of developmental task from infancy to late childhood.

Contents:

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1.	Observation of Neonatal Reflexes.
2.	Anthropometric Measurement and Assessment of Children in Different Age Groups and Settings: Plotting and interpretation of Growth Charts.
3.	Assessment of various Developments of Infants.
4.	Identification of Childhood Health and Developmental Problems.
5.	Preparation of Observational Check List to Assess Physical, Motor, Social, Language, Emotional and Cognitive Developmental Tasks.
6.	In -depth Case Study of a Selected Child.

INNOVATIVE AND CREATIVE SKILLS IN CHILDREN (PRACTICAL)

Paper Code: HDF A12

Credits: 4

Max. Marks: 100

Teaching Hours: 2 Practicals/Week (3 Hours/Practical)

Total Teaching Workload: 30 Practicals /Semester

Objectives:

1. To help students understand, plan and develop activities for children in ECCE centres.
2. To develop creative skill among students for the overall assessment of Child Care centres.

Contents :

1.	Meaning, Definition and Significance of Play and Creativity in Growth and Development of children.
2.	Types of Play: Exploratory, Solitary, Parallel, Symbolic, Constructive, Dramatic/role play, Co-operative play, individual play, Group Play, Sports, Games.
3.	Components of Creativity: Fantasy, Imagination, Giftedness, Fluency, Flexibility, Originality, Celebration and Curiosity.
4.	Equipments and Materials Used for Promotion of Play and Creativity (Indigenous Play Materials).
5.	Planning and Implementation of Play and Creative Activities with Children in Different Age Groups.
6.	Preparation of Materials and Aids to Promote Play and Creativity.
7.	Survey and Evaluation of Children's Literature and Play Materials.

APPROACHES TO HUMAN STUDY (PRACTICAL)

Paper Code: HDF A13

Credits: 2

Max. Marks: 100

Teaching Hours: 2 Practicals/Week (3 Hours/Practical)

Total Teaching Workload: 30 Practicals /Semester

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Objectives:

1. To help the students gain knowledge of methods of Human Study.
2. Apply these methods with different age groups, hence covering the life span stages of human development.

Contents :

1. Needs and Importance of Human Study. Different Approaches to Human Study: Cross sectional approach, longitudinal approach, and sequential approach.
2. Methods of Human study: observation, survey, interview, questionnaire, experiment, case study, sociometry, and focus group discussion – Merits and Demerits.
3. Quantitative and Qualitative Approaches to Human Study.
4. Applications of Methods in Different Stages of Life.
5. Critical Analysis of current Issues through FGD'S and Debate with Focus on Child, Women and Elderly.

SECOND SEMESTER

S. No.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			EoSE Duration (Hrs.)	
					L	T	P	Thy	P
1.	HDF 801	History & Theories of Human Development -II	CCC	4	4	0	0	3	0
2.	HDF 802	Philosophies, Ideologies and Approaches of ECCE	CCC	4	4	0	0	3	0
3.	HDF 803	Early Childhood Care Education	CCC	4	4	0	0	3	0
4.	HDF 804	Parenthood and Family	CCC	2	2	0	0	3	0
5.	HDF 811	Assessment and Evaluation of Psychological testing	CCC	4	0	0	6	0	4
6.	HDF BO1	Statistics	ECC	4	4	0	0	3	0
7.	HDF BO2	Life Span Development-II	ECC	4	4	0	0	3	0
8.	HDF B11	Computer Application	ECC	2	0	0	3	0	4
9.	HDF B12	Adolescent and Adult Issues	ECC	4	0	0	6	0	4
10.	HDF B13	Skill Development in Welfare Agencies	ECC	4	0	0	6	0	4

CCC(18), ECC(18)

SECOND SEMESTER

HISTORY AND THEORIES OF HUMAN DEVELOPMENT – II (THEORY)

Paper Code: HDF 801

Credits: 4

Max. Marks: 100

Teaching Hours: 4Hours /Week

Total Teaching Workload: 60Hours /Semester

Objectives :

1. To acquaint the students with the basic knowledge and concepts of theories on learning, cognition, intelligence, culture and morality.
2. To help them to gain insights into understanding of complex psychological influences.

Unit -I

Principles, basic concepts, critique, implications and comparative analysis of the following theories:

1. Cognitive theories of Jean Piaget and Bruner.
2. Learning Theories with reference to Pavlov, Watson, Skinner, Harlow, Bandura and Sears.

Unit -II

3. Field theory of Levin.
4. Gardner's theory of Multiple Intelligence.
5. Ecological Theory by Bronfen Brenner.

Unit -III

6. Vygotsky's socio-cultural perceptive.
7. Chomsky's theory of language.
8. Kohlberg's theory of Moral Judgement.

References :

1. Hetherington, E.M. and Parke R.D. (1986). Child Psychology- a Contemporary viewpoint (3rd ed.) McGraw Hill Book Company. New York
2. Baldwin, A.L. (1980). Theories of child development (2nd Ed.) John Wiley & Sons. New York
3. Shaffer, D.R. (1993). Development Psychology – Childhood and Adolescence (3rd Ed.) Brooks/Cole Company, California.
4. Santrock, J.W. (1996). Child development (7th Ed.) Brown & Benchmark. USA.
5. Vasta, R; Haith, M.M. & Miller, S.A. (1992) Child Psychology- The Modern Science New York: John Wiley & Sons.

PHILOSOPHIES, IDEOLOGIES AND APPROACHES OF ECCE (THEORY)

Paper Code: HDF 802

Credits: 4

Max.Marks:100

TeachingHours: 4 Hours/Week

Total Teaching Workload: 60 Hours/Semester

(B)

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Objectives :

1. To gain knowledge and insight regarding Philosophies of early childhood care and education
2. To understand the contributions of Indian thinkers and educators for ECCE.
3. To gain knowledge regarding types of ECCE programmes.

Unit- I

1. Historical perspectives of ECCE in the West and in India.
2. Philosophies and contributions of Western Thinkers and Educators
 - Plato
 - Comenius
 - Rousseau
 - Mcmillan Sisters
 - Froebel
 - John DeweyMaria Montessori

Unit -II

3. Philosophies and contributions of Indian thinkers and educators.
 - M.K. Gandhi
 - Rabindranath Tagore
 - Annie Besant
 - GijubhaiBadheka
 - TarabaiModak and Anutai Wagh

Unit -III

4. Types of ECCE programmes
 - Head start
 - Balwadi
 - ICDS /Anganwadi
 - Nursery schoolDay care centre and crèches

References :

1. Brewer, J.A. (1998). Introduction to early childhood education (3rd Edition). Allyn and Bacon, Boston.
2. Essa, E.L. (1999). Introduction to Early Childhood Education (3rd Edition). Delmar Publisher: US.
3. Khurshid-ul-Islam and Rao, V.K. (1997). (edited). Early childhood care and education. New Delhi: Commonwealth Publishers.
4. Kaul, V. (1997). Early Childhood education programme. New Delhi: NCERT.
5. Mohanty and Mohanty (2002). Early Childhood Care and Education (ECCE) New Delhi: Deep and Deep Publication Pvt.Ltd.
6. Nakra, O. (1997). Children and learning difficulties. New Delhi: Allied Publishers Limited.
7. Schirmacher, R. (1998). Art and creative development for young children (3rd edition). Delmar Publishers: US.
8. Skinner, S. (2007). Creative Activities for the Early Years. Paul Chapman Publishing. Sage:UK.

EARLY CHILDHOOD CARE AND EDUCATION (THEORY)

Paper Code: HDF 803

Credits: 4

Max. Marks: 100

Teaching Hours: 4 hours /week

Total Teaching Workload: 60 hours /semester

Objectives :

1. To gain knowledge and insight regarding early childhood care and education.
2. To develop the skills and techniques to plan activities and implement in ECCE Centres i.e. crèches and day-care centres, preschool and anganwadicentres.
3. To gain knowledge and skills of positive discipline, behaviour modification and role of special educator.
4. The students will also learn to evaluate ECCE centres.

Unit -I

1. Focus on Early Childhood Care and Education in five years plans.
2. Organisation and management of ECCE centres.
3. Planning and execution of developmentally appropriate activities for infants and preschoolers in: (a) Crèches and day-care centres
(b) Preschools and Anganwadis

Unit -II

4. Home School Relationship –Need and Importance.
5. Need and Importance of involvement of parents/grandparents in ECCE centres e.g. as substitute teacher, celebration of festivals and functions, open house, as an expert etc.
6. Techniques of Parent Education i.e. PTM, Home Visits, Workshops, Lectures, Telephonic calls, Demonstrations, PTAs and any other relevant technique.

Unit -III

7. Disciplining children: tips for teachers and parents to introduce positive discipline.
8. Behaviour modification strategies for young children.
9. Role of special educators in ECCE Centres to facilitate inclusive education.
Evaluation: - Definitions and meanings and types of evaluation, Informal / Ongoing evaluation, Formative and Summative evaluation. Techniques/ tools for evaluation: Observations, structured interviews, work records, checklists and rating scales, self- evaluation, standardized tests i.e. norm referenced tests and criterion- referenced tests.

References :

1. Agarwal M and NarangD,(2004) AbhinavPrashikshan Training Module for Lady Supervisors ,CARE INDIA, Jaipur
2. Ainsworth, F. and Fulcher, L.C. (Ed.) (1981). Group care for children. Tavistock Publication. London and New York.
3. Topping, K.J. (1986). Parents as educators' training Parents as Educators – Training Parents to teacher their children. London & Sydney: Croomhelm.
4. Turner, J. (1980) Made for life-coping, Competence and cognition. London and New York: METHUEN
5. Kostelink, MJU. Soderman, A.K. and Whiren, A.P. Developmentally Appropriate Curriculum-Best Practices in Early Childhood Education: Merrill and imprint of Practice Hall
6. Grewal. J.S. (1984) Early Childhood Education – Foundation and Practice. National Psychological

Corporation Agra.

- Narang, D. Purohit S. and Karodia, K. (2008) – Early Childhood care and Development – Practical Manual. Shivam Book House Pvt. Ltd, Jaipur.

PARENTHOOD AND FAMILY (THEORY)

Paper Code: HDF 804

Credits: 2

Max. Marks: 100

Teaching Hours: 2 hours/week

Total Teaching Workload: 30 hours/semester

Objectives:

- To gain knowledge and insight regarding responsible parenthood and fatherhood.
- To gain knowledge of reproductive health and rights, family planning techniques and services.

Unit - I

1. Parenthood: meaning and different theoretical views.
2. Changing concept of parenthood with special focus on fathering and responsible parents.

Unit - II

3. Contribution of different agencies and centers in parenthood:
Family planning centers, Hospitals, Maternity and child welfare centers.
4. Reproductive and child health programs and reproductive rights of women.

Unit - III

5. Birth control measures: abstinence, breast feeding, pills, sponge, condom, IUD, spermicide, tubectomy, vasectomy, cervical cap, diaphragm and other advanced measures.
6. Planned Parenthood services: safe abortion, HIV testing, pregnancy testing, general health care, STD testing: treatment and vaccines.

References :

1. Narang, D. Vaishnav R & Karodia, K. (2011) – Child marriage: determinants and psycho-social consequences, Avishkar Prakashan Jaipur.
2. Brim, Haman (1980): Learning to be Parents, Principles, Programs, and Methods. SAGA Publication.
3. Fine Harwin (1980): Handbooks on Parent Education, New York: Academic Press Inc.
4. Gillian, Pugh (1984): The Needs of Parents, Practice and Policy in Parent Education, Macmillan.
5. Kulkarni, Sudha (1988): Parent Education, Rawat Publication, Jaipur.
6. Family Planning and Reproductive Health by Congressional Research Service, Inc Penny Hill Press and Kurtis Toppert.
7. Rebecca A. Clark (2009): Planning Parenthood: Strategies for Success in Fertility Assistance, Adoption, and Surrogacy. Johns Hopkins University Press.

ASSESSMENT AND EVALUATION OF PSYCHOLOGICAL TESTING (PRACTICAL)

Paper Code: HDF 811

Credits: 4

Max. Marks: 100

Teaching Hours: 2 Practicals/Week (3 Hours/Practical)

Total Teaching Workload: 30 Practicals/semester

Objectives :

1. The students will be able to understand the use of psychological tools.
2. The students will be able to develop instruments/ psychological tools.
3. The students will be able to administer score and interpret the various psychological tests.

Contents :

1. Definition of Measurement, Assessment and Evaluation.
2. Characteristics and use of psychological testing and tools.
3. Common statistical notations and definitions – constant, variable, population, sample, parameter, etc.
4. Standardized tests –meaning, characteristics, types, item analysis, basic concepts of measurement and interpretation.
5. Steps for tool construction and standardization.
 - Reliability-meaning, types-retest; parallel-form, internal consistency.
 - Validity-meaning, types-content, criterion, construct.
 - Norms and interpretation of test score.
6. Administration of test and report writing:
The Wechsler battery of tests, TAT, CAT, Draw a man test, house- tree-person, Ravens Progressive Matrices, Self- Esteem Inventory, Sex- role Inventory, Myers Briggs type indicator etc.

References :

1. Agarwal, J.C.: Educational Research-An introduction, Arya Book Depot, New Delhi.
2. Best, J.W.: Research in Education, Prentice Hall of India, New Delhi.
3. Bhatnagar, G.L. (1990): Research Methods and measurements in behavioural and social sciences, Agri. Cole publishing Academy, New Delhi.
4. Chandra, S.S. and Sharma, R.K.: Research in Education, Atlantic Publishers, New Delhi.
5. Pareek, U. and Purohit, S. Training Instruments in HRD and OD, 3rd edition, Tata McGraw Hill, New Delhi.

STATISTICS (THEORY)**Paper Code: HDF B01****Credits: 4****Max. Marks: 100****Teaching Hours: 4 Hours /Week****Total Teaching Workload: 60 Hours /Semester****Objectives**

1. To understand the basic concepts of statistics.
2. To enable the students to understand various types of statistical tools and their interpretation

Contents:**UNIT- I**

1.	Statistics: meaning, scope and importance in research
2	Classification and Tabulation
3	Measures of Central Tendency and Dispersion (Mean, Median, Mode, Quartiles, Range and Standard Deviation).
4	Graphic and Diagrammatic representation of data (Frequency, Histogram, Graphs, Bar-diagram and Pie charts).

UNIT- II

5	Elementary ideas on Probability (Simple Probability) Skewness and Kurtosis definition. Elementary ideas of random variable and its density function (Binomial, Poisson, Uniform, Normal varieties, Normal distribution and its properties, Use of Normal probability tables).
6	Elements of testing a Statistical Hypothesis- Formulation of the problem, Definition of type I and II errors. Level of Significance. t-test, Z-test.

UNIT-III	
7	Design of Experiment: Analysis of Variance
8	Correlation and Regression: Correlation and its interpretation. Product moment and Rank order. Correlation Coefficient Regression Equations (without derivation) and its interpretations, use of prediction.
9	Non-parametric Inference: Sign, Mann Whitney and Chi square test (as goodness of fit and independence of attributes in 2*2 and r*c contingency tables).
10	Use of computers for statistical analysis using SPSS.

References:

1. Simpson, George ,Kafka, Fritz, Basic statistics: a textbook for the first course, Oxford and IBH Publishers, New Delhi, 1977.
2. Taro Yamme, Sampling Theory, Prentice-Hall Publishers, New Delhi 1967.
3. Snedecor and Cochran, Statistics Methods, Oxford and I.B.H. Publishers, Calcutta, 1968.
4. Gupta S.P., Statistics Methods, Sultan Chand and Co., New Delhi, 2008.
5. Good C.V. and Carter D.E., Methods of Research-Educational Psychological Application, Century Craft, New York 1954.
6. Kerlinger F.A., Foundation of Behavioural Research, Century Craft, New York, 1966.
7. Yound P.V. and Schind C.G., Scientific Social Survey and Research, Prentice Hall, New Delhi, 1968.
8. Philips B.S, Social Research, Strategy and Tactics, MacMillan, New York, 1976.
9. Mussed Paul, Hand book of Research Methods in Child Development, John Wiley & Sons Inc, 1960.
10. Devdas R.P. and Kulandaivel, Hand Book of Research Methodology, Sri Ram Krishna mission vidhyalaya, 1971.
11. Krishnaswami R.P., Methodology of Research in Social Sciences, 1st edition, Himalaya Publishing house, Mumbai, 1993

LIFE SPAN DEVELOPMENTS -II (THEORY)

Paper Code: HDF BO2

Credits: 4

Max. Marks: 100

Teaching Hours: 4 hours/week

Total Teaching Workload: 60 hours/semester

Objectives:

1. To acquaint students regarding the prenatal developmental processes and prenatal and neonatal assessment.
2. To help students gain an understanding of the growth and development from infancy to late childhood.

Unit- I

1. Late Adolescence

- Problems and challenges of late adolescence.
- Understanding adolescence emotional, cognitive, and moral development.
- Adolescence: Erikson and Maria's model.
- Significant issues in Adolescence: Rebellion and Conflict with Home and School Authorities.

2.	<p>Delinquency and Psycho – emotional Problem, Educational and career Choices and Co curricular Interests.</p> <p>Early Adulthood:</p> <ul style="list-style-type: none"> • Understanding developmental tasks of early adulthood (18-40 years) • Period of youth (18-25 years) and its challenges • Choices in career and marriage • Interpersonal and Intrapersonal adjustments • Preparation for Parenthood and child rearing, roles and responsibility • Significant issues in adulthood: Live-in-relationship, Being single, Divorce, Remarriage, Gay marriage, DINKS, Adoption and single parent adoption.
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Unit- II

3.	<p>Middle Adulthood/Middle age</p> <ul style="list-style-type: none"> • Challenges, adjustments and developmental tasks of middle adulthood (40-60 years) • Onset of climacteric changes: Menopause and Andropause, mid life crises • Adjustment and management of health needs, increasing status and pressure in work and career; • Familial stage of “empty nest” • Social responsibilities and leisure time activities. • Preparation of settlement of children and retirement.
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Unit -III

4.	<p>Late Adulthood and Aging:</p> <ul style="list-style-type: none"> • Challenges and Adjustment during late adulthood and aging (60-onwards). • Declining physical/motor, memory and sensory capacities. • Adjustment with changes in familial situation, losing of life partner or significant others and facing grief and loss; • Financial adjustment, organizing social life and activities. • Factors to “successful aging”.
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References :

<ol style="list-style-type: none"> 1. Santrock, J. W. (1983). Life Span Development. Wm. C. Brown Publishers, Dubuque, Iowa. 2. Freiberg, K. L. (1992). Human Development: A Life Span Approach. Jones and Bartlet Publishers, London. 3. Kaluger, G. (1986). Human Development: The Span of Life. Macmillan Publishing Company, New York. 4. Papalia, D.E., Olds, S.W. and Feldman, R.D. (2004). Human Development (9th Ed). Tata McGraw-Hill Publishing Company Ltd. New Delhi 5. Berk, L.E.(2004). Development Through the Lifespan (3rd Ed). New Delhi: Pearson Education, Inc. 6. Bhatt, N. (2007). Human Development- A Lifespan Perspective. Jaipur :Aavishkar Publishers. 7. Rice, F.P. (1992). Human Development: A Lifespan Approach. New Jersey: Prentice Hall. 8. Shaffer , D,R. and Kipp, K.(2007). Developmental Psychology: Childhood and Adolescence(7th Ed). Australia: Thompson Wadsworth 9. Saraswathi, T.S.(2003). Cross-Cultural perspectives in Human Development: Theory, Research and Applications. New Delhi: Sage Publications.

COMPUTER APPLICATION (PRACTICAL)

Paper Code: HDF B11

Credits: 2

Max. Marks: 100

Teaching Hours: 1 Practical /Week (3 Hours/Practical)

Total Teaching Workload: 15 Practicals/Semester

Objectives :

1. To understand the basic fundamentals of computers and role of computers in research application.
2. To enable the students to handle computers for the purpose of data communication and internet browsing.
3. To enable the students to use MS office and basic concepts in SPSS

Contents :

Introduction

1. Classification of computers and computer memory.
2. Types of software: Application and System software, Operating System and Types: Single user, multiuser.

Data Communication and Networks

3. Data communication concept
4. Internet, web-e-mails
5. Search engines- Enterprises: e-communication and e-collaboration

MS Office and its Application

6. File handling in windows
7. MS Word: Text formatting
8. MS Excel: Features, various formula and functions
9. MS Power Point: Creating presentation and adding effects

Statistical Software for Social Sciences (SPSS)

10. Introduction to SPSS: Definition, objectives and features.
11. Data analysis using SPSS: Data entry, creating variables, switching to data labels.
12. Data analysis: frequencies, recording into different variables, cross tabulation and layers.

References :

1. Sinha P and Sinha P. Computer fundamental, 6th edition, B.P.B. Publications, 2004.
2. Norton P. Introduction to Computers, TATMcGraw Hill, 2005.
3. Nagar P and Soni M. Computer Fundamental and Introduction to IBM PC, Ramesh Book Depot, New Delhi, 2009.
4. Taneubaum. Computer Network, Prentice Hall, New Delhi ,2003.

ADOLESCENT AND ADULT ISSUES (PRACTICAL)

Paper Code: HDF B12

Credits: 4

Max.Marks:100

Teaching Hours: 2 Practicals/Week (3 Hours/Practical)

Total Teaching Workload: 30 Practicals /Semester

Objectives:

1. To acquaint students to gain knowledge regarding the development processes during adolescent period.

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To help students gain an understanding of the assessment of social, emotional, psychological and other significant issues related to adolescence, adulthood and ageing years.

Contents:

1. Formulation of questionnaire to assess adolescent problems and conflicts
2. Plan and organize FGD for adolescents for healthy and responsible psycho social behavior.
3. Preparation of interview schedule for adults taking into account their developmental tasks.
4. Organising interactive session and focus group discussions on significant issues of adulthood.
5. Conversations and interviews and case study with elderly to highlight their concerns, anxieties, adjustment and other problems. Planning and organising social activities with elderly.

SKILL DEVELOPMENT IN WELFARE AGENCIES (PRACTICAL)

Paper Code: HDF B13

Credits: 4

Max.Marks:100

Teaching Hours: 2 Practicals/Week

Total Teaching Workload: 30 Practicals /Semester (3 Hours/Practical)

Objectives:

1. The students will visit and be acquainted to functioning of different welfare agencies working for children, women and elderly.
2. They will also participate and be enabled to produce a blue print for the same.

Contents:

1. Preparation of a checklist to assess: - administration, management, infrastructure facilities and functions of child, women and elderly people welfare institution (Govt. and NGOs).
2. Preparation of a checklist to assess governmental provisions and polices on child, women and elderly people welfare.
3. Organising field visits (5-6) to various welfare organisations working for- Children, Women and ageing adults.
4. Critical analysis of any two welfare institutions through participatory approach and Preparation of a blue print with suitable recommendations.

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THIRD SEMESTER

S. No.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			EoSE Duration (Hrs.)	
					L	T	P	Thy	P
1.	HDF 901	Children with Developmental Disabilities	CCC	4	4	0	0	3	0
2.	HDF 902	Rights, laws and policies for children and adults	CCC	4	4	0	0	3	0
3.	HDF 903	Guidance and Counseling	CCC	4	4	0	0	3	0
4.	HDF 911	Developing Entrepreneurial skills	CCC	4	0	0	6	0	4
5.	HDF 912	Agency Placement	CCC	2	0	0	3	0	4
6.	HDF CO1	Scientific Writing	ECC	4	4	0	0	3	0
7.	HDF CO2	Family Dynamics	ECC	4	4	0	0	3	0
8.	HDF C11	Guidance and Counseling	ECC	4	0	0	6	0	4
9.	HDF C12	Dissertation- I	ECC	6	0	0	9	0	1
				36					

CCC (18) ECC (18)

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 JAIPUR

THIRD SEMESTER

CHILDREN WITH DEVELOPMENTAL DISABILITIES (THEORY)

Paper Code: HDF 901

Credits: 4

Max.Marks:100

TeachingHours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives :

The student will be able to

1. Summarize causes, incidence and characteristics of exceptionalities related to the domains of development.
2. Define areas of exceptionality and special education.
3. Identification of exceptionality as to genetic and/or environmental causes
4. Discuss prevalence and/or incidence of different categories of exceptionalities.
5. Describe possible signs or characteristics of each area of exceptionality.

Contents:

UNIT-I

1. Meaning and definition of developmental disabilities.
2. Definition, causes, types, treatment, and rehabilitation of children with Neurological disorders- Intellectual disability, Autism, Down's syndrome, fragile X syndrome, Cerebral palsy, Epilepsy.

UNIT -II

3. Definition, causes, types, treatment, and rehabilitation of children with sensory disabilities- visual impairment, auditory impairment, speech impairment.
4. Definition, causes, types, treatment, and rehabilitation of children with metabolic and degenerative disorders-phenylketonuria, hypothyroidism, Rett syndrome
5. Learning disabilities

UNIT -III

6. Inclusive, integrated and special schools
7. Rights, programs, policies and acts of children with developmental abilities.

References:

1. Bootzin R. R. (1993) Abnormal psychology Current perspectives (vithed.)McgrawHill Inc., New York
2. Man, Psychology, Houghton Mifflin Company Boston, (1951) New Delhi.
3. Kirk, S.A. Education "Exceptional Children", Hungton, Niffhin, 1962.

RIGHTS, LAWS AND POLICIES FOR CHILDREN, WOMEN AND ADULTS (THEORY)

Paper Code: HDF 902

Credits: 4

Max.Marks:100

TeachingHours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives :

1. To develop awareness of constitutional provisions and legislations for women and children.
2. To acquire critical knowledge of the adequacy and relevance of prevalent social policies and programs as they relate to women, elderly and children.
3. To gain in depth understanding of the "Rights and Laws"

UNIT -III

7. Assessment Techniques - Important Factors – Tools of Assessment
8. Special areas of counselling
9. Counselling with special children
10. Recording and interpretation of a counselee from a holistic perspective

References:

1. Karodia, K ;Singhal R &Narang, D. (2009) – Working women: spirituality,psychologicalwell being and marital adjustment, Pointer publishers,Jaipur.
2. Brammer, L.M. (1985). The helping relationships: Process and skills. New Jersey: Prentice-Hall.
3. Hackney, H. & Cormier, L.S. (1979). Counselling strategies and objectives. New Jersey: Prentice Hall
4. Thornburg, H.E. (1975). Contemporary Adolescence: Readings, Belmont: Wadsworth.

DEVELOPING ENTREPRENEURIAL SKILLS (PRACTICAL)**Paper Code: HDF 911****Credits: 4****Max. Marks: 100****Teaching Hours: 2 Practicals/Week (3 Hours/Practical)****Total Teaching Workload: 30 Practicals /Semester****Objectives:**

1. To orient students for various Entrepreneurial Skills.
2. To help students to learn the planning, organizing and executing Entrepreneurial Skills.
3. Students will be able to use these skills in future.

1. Preparing teaching/play materials:
 - Story, Rhymes, Poems, Song booklets etc.
 - Puppets and Mobiles.
 - Art and Crafts.
 - Low cost Musical Instruments.
2. Planning and organizing activities like BalMela, PTM, Sports day, Annual day etc.
3. Publicity, display and exhibition of prepared materials.
4. Play therapy for severely malnourished children based on WHO guidelines.

AGENCY PLACEMENT (PRACTICAL)**Paper Code: HDF 912****Credits: 2****Max. Marks: 100****Teaching Hours: 2 Practicals/Week (3 Hours/Practical)****Total Teaching Workload: 30Practicals /Semester****Objectives :**

1. Students are required to be placed in an agency for a full semester.
2. Students will observe, learn and participate in selected agencies of children, women and elderly persons.
3. Students will require evaluating the working of the agency; highlighting strengths and weakness making recommendations.

- g. Bibliography/ References
 - Different types of writing styles- APA, MLA, Chicago
- h. Appendices

UNIT- III

5 Preparing drafts and improving drafts for Scientific writing-

- a. Research Article/ Scientific paper
- b. Abstract
- c. Review paper
- d. Reports

6 Writing and presenting a research proposal for grants-

- a. Background information
- b. Justification
- c. Rationale and importance
- d. Pilot study
- e. Research proposal
- f. Time-frame
- g. Outcome of the study and its implications
- h. Budgeting
- i. Summary

References-

1. APA, Publication manual of American Psychological Association, 3rd Edition, Washington, 1984.
2. Cooper HM. Integrating research, A guide for literature review, 2nd Edition, Sage publications, California, 1989.
3. Dunn FV and others, Disseminating Research: Changing profile, Sage publications, 1994.

FAMILY DYNAMICS (THEORY)

Paper Code: HDF CO2

Credits: 4

Max.Marks:100

TeachingHours: 4 Hours/Week

Total Teaching Workload: 60 Hours/Semester

Objectives :

- 1.To understand family as a component of socio-cultural milieu and context, to familiarize students with developmental perspective in family life cycle.
2. To understand variations in family life patterns.
3. To create awareness regarding philosophy, structure, function, needs and strengths of families with specific reference to the Indian Family.

Contents :

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UNIT-I	
1.	The Family in Social Context: Family as a component of social system, structure and context Family as an evolving and dynamic institution. Functions of family.
2.	Family- Definitions of family from different perspectives approaches of Family – Biological Historical, Sociological, Developmental, Structural and Functional. Family as evolving and dynamic institution. Current Family problems.
UNIT-II	
3.	Family and Societal exchanges / influences: Work and Family, Education and Family, Health and Family, Religion and Family, Ecology and Family, Government and Family.
4.	Kinship Groups and Systems, Types, Degrees, Descent and Usage and its influence on Child's Development.
UNIT-III	
5.	Society: Structure-Rural, Urban and Modern Society and its influences on the family. Social Stratification- Social Ranking and Social Class Difference.
6.	Socialization: Meaning and Importance, Agents of Socialization, Socialization through the Life Course, Socialization in present context. Personality as a Social Phenomenon, Personality and Society, Their Inter relationship.
7.	Major Factors Affecting Personality, Impact of deprivation on the child.
References :	
<ol style="list-style-type: none"> 1. Adams, B.N. (1975). The Family: A Sociological Family: A Sociological Interpretation. Rand McNully, Chicago. 2. Ahuja, R (1997). Indian Social System (2nd Ed.) RawatPuplication.Jaipur. 3. Arcus. H.E. and Others (1993). Handbook of Family Education: ThePractice of Family life education (Vol. II). Sage Publication. New York. 4. Bahr, S.J. (1989). Family Interaction. Macmillan Publication Company, New York. 5. Bharat, S & Desai, M. (1995). Indian Bibliographies on the Family. Bombay:Tata Institute of Social Sciences. Bombay. 6. Bharat. S. (1996). Family measurement in India. Sage Publication. New Delhi 7. Cole mar, J.C. (1988). Intimate relationships: Marriage and family patterns. Macmillan. New York. 8. Coouer, R (1975). Family: Its structure and functions. Macmillan.New York 9. Das, H.S ,Bardis, P.O. (Eds.) (1978). The World Revolution in Family Patterns The Free Press. New York: 	
GUIDANCE AND COUNSELLING (PRACTICAL)	
Paper Code: HDF C11	
Credit: 4	
Max.Marks:100	
Teaching Hours: 2 Practicals/Week (3 Hours/Practical)	
Total Teaching Workload: 30 Practicals /Semester	
Objectives :	
<ol style="list-style-type: none"> 1. The students will be able to develop a tool. 2. The students will be able to counsel different age groups 	

Contents:

1. Visit to psychological counseling cell
2. Writing and compiling articles on various aspects of guidance and counselling.
3. Need assessment of individual guidance and counseling by suitable tool.
4. Prepare an interview schedule for an effective Counseling.
5. Visit a guidance centre and write a report about its organization and functions.
6. Case profile of an individual.

References :

1. APA, Publication manual of American Psychological Association, 3rd Edition, Washington, 1984.
2. HM Cooper, Integrating research, A guide for literature review, 2nd Edition, Sage publication: California, 1989.
3. FV Dunn and others, Disseminating Research: Changing profile, Sage publications 1994.

DISSERTATION- 1 (PRACTICAL)**Paper Code :HDF C12****Credit: 6****Maximum Marks:100****Teaching Periods: 3Practicals/Week****Teaching Load: 45 Practical/Semester****Objectives :**

1. To enable student to make and present a plan for research
2. To impart systematic and practical knowledge of research and its applied aspects
3. To develop scientist quality in student

Contents :

1. Identification, analysis and selection of research problem and its relevance
2. Collecting relevant review and research paper regarding to research problem
3. Synopsis writing and power point presentation
 - Introduction
 - Rationale of the study
 - Objectives
 - Review of literature (minimum 20 references should be cited)
 - Brief methodology
 - Plan of action
 - Bibliography

References:

1. Refer available journals, research studies and abstract books

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JAFUR

FOURTH SEMESTER

S. No	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			EoSE Duration (Hrs.)	
					L	T	P	Thy	P
1.	HDF XO1	Administration and Management of Welfare Agencies	CCC	4	4	0	0	3	0
2.	HDF XO2	Psychological Disorders	CCC	4	4	0	0	3	0
3.	HDF XO3	Contemporary Issues in Human Development	CCC	4	4	0	0	3	0
4.	HDF X11	Training with Disabled Children	CCC	6	0	0	9	0	4
5.	HDF DO1	Cross Cultural Psychology	ECC	4	4	0	0	3	0
6.	HDF D11	Family and Community Studies	ECC	4	0	0	6	0	4
7.	HDF D12	Dissertation -II	ECC	6	0	0	9	0	1
8.	HDF D13	Need Based care of Elderly	SSECC	4	0	0	6	0	1

CCC (18), ECC (14), SSECC (4)

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DEPARTMENT OF PSYCHOLOGY
 UNIVERSITY OF PARAGANAH
 JAN 20

FOURTH SEMESTER

ADMINISTRATION AND MANAGEMENT OF WELFARE AGENCIES (THEORY)

Paper Code: HDF XO1

Credits: 4

Max.Marks:100

TeachingHours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives :

- 1.To make students aware about administration and management of various government and non government agencies, programs and policies related to nutrition, care and educational status of children in India.
2. To teach them about demographic profile of Indian population.

Contents :

UNIT-I

1. Health, nutrition and educational status of children in India with specific reference to girl child and rights of children.
2. Welfare programs in India in five year plans.

UNIT-II

3. Existing Government organisations looking for welfare of children and women in India ICCW, CSWB, NIPCCD, NCERT, TNEP, EPAI, ICSW, CHEB, CRY, Helpage India.
4. Welfare programmes in India – ICDS, SOS village, Chetana, Orphanages, Balbhawan society.

UNIT-III

5. International organisations – UNICEF, WHO, CARE, DANIDA, World Bank, CASA.
6. NGOs – Bodh, I- India, Diganter, Vatsalya, Mother Teresa home and other existing nongovernmental organisations.

References :

1. Koradia, K.: Narang, D. AndVaishnav, R. (2010) Status of Child and Welfare Organisations, Avishkar Publishers and Distributors, Jaipur.
2. Barr, A.S., Burton, W.H. &Brenckner. L.J. "Supervision" D. Appleton – Century Company, New York, 1938.
3. Social Welfare – CSWB.Periodicals
4. The Journal of the Welfare- Family planning, Association of India.
5. The Indian Journal of Social Work- Tata Institute of Social Sciences.

PSYCHOLOGICAL DISORDERS (THEORY)

Paper Code: HDF XO2

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

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Objectives :

1. The students will be able to describe the diagnosis and classification process.
2. The students will be able to describe mood disorders.
3. The students will be able to identify the different personality disorders.
4. The students will be able to discuss the characteristics and traits associated with the different personality disorders.

Contents:**UNIT-I**

1. Meaning, definition of psychopathological disorders.
2. Childhood and adolescence psychiatric disorders-conduct disorders, ADHD.

UNIT -II

3. Mood disorders-depression, bipolar disorder.
4. Neurotic and psychotic disorders-phobia, obsessive compulsive disorder, schizophrenia, paranoia, hysteria.

UNIT -III

5. Personality Disorders:
(a) Dissociative (b) Impulsive (c) Anti-Social (d) Borderline
(e) Avoidance (f) Dependent Personalities.
6. Sexual variations and disorders: Changing views of sexual Behaviour - Homosexuality - Sexual Dysfunctions - Gender identify Disorder The paraphilias - Sexual Victimizations.
7. Psychological Models of Psychopathology: Biological, Psychodynamic, Behavioural, Cognitive-Behavioural, Humanistic, Existential, Socio-cultural.

References:

1. Atkinson, L et al. (2004). Attachment Issues in Psychopathology and Intervention. Lawrence Erlbaum.
2. Berrios, G.E.(1996) The History of Mental Symptoms: Descriptive Psychopathology since the 19th century. Cambridge University Press, Cambridge.
3. Davidson, G.C., Blankstein, K.R., Flett, G.L., & Neale, J.M. (2008). *Abnormal psychology*. Mississauga, John Wiley & Sons.
4. Keating, D P et al. (1991). Constructivist Perspectives on Developmental Psychopathology and Atypical Development. Lawrence Erlbaum.
5. Maddux, J E et al. (2005). Psychopathology: Foundations for a Contemporary Understanding. Lawrence Erlbaum.
6. McMaster University. (2011). Psychological disorders. In Discover psychology (pp. 154-155, 157-158, 162-164) [Introduction]. Toronto, ON: Nelson Education.
7. Roudinesco, Elisabeth, Why Psychoanalysis?, New York, Columbia University Press, 2003
8. Roudinesco, Elisabeth and Michel Plon, Dictionnaire de la Psychanalyse, Fayard, Paris, 2000
9. Sims, A. (2002) Symptoms in the Mind: An Introduction to Descriptive Psychopathology (3rd ed). Elsevier.
10. Widiger, T A et al. (2000). Adult Psychopathology: Issues and Controversies. Annual Review of Psychology.

CONTEMPORARY ISSUES IN HUMAN DEVELOPMENT (THEORY)

Paper Code: HDF XO3

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours/Semester

Objectives :

1. To become aware of the current issues involved in Human Development.
2. To gain knowledge, insight and to analyze critical issues in society.

Contents:

UNIT-I

1. Changing trends across cultures ,impact of media and advanced technologies in families and community
2. Gender gap, Gender sensitization, Gender violence and equality
3. Empowerment of various sections of society

UNIT -II

4. Definition, status and problems of child abuse and violence, situation of child labor in organized and unorganized sectors of India.
5. Women and violence, types of violence, domestic violence, harassment at workplace, marital violence

UNIT -III

6. Understanding needs of special children and elderly persons
7. Enabling family members and creating innovative support system for disabled

References:

1. Narang D; Koradia K and Neelam (2013).Female feticide and infanticide: educational program for adolescents, Lambert Academic Publishing, Germany
2. Craig R. Fiedler, Richard L. Simpson, Denise M. Clark. (2007). Parents and families of children with disabilities: Effective School-based Support Services. Pearson Merrill/Prentice Hall, The University of Michigan.
3. Calder M with Gordon H and Howarth E (2004) *Children Living with Domestic Violence: Towards a framework for assessment and intervention*. Lyme Regis: Russell House Publishing.
4. Debal K Singharoy (2002). *Social Development and the Empowerment of Marginalised Groups Perspectives and Strategies SAGE Publications Pvt. Ltd , New Delhi.*

TRAINING AND WORKING WITH DISABLED CHILDREN (PRACTICAL)

Paper Code: HDF X11

Credits: 6

Max. Marks: 100

Teaching Hours: 3 Practical/Week (3 Hours/Practical)

Total Teaching Workload: 45 Practical/Semester

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Objectives :

The students will be able

1. To identify the special needs of children and develop confidence in them to realize their potentials and abilities to meet the national development with self respect, dignity and freedom.
2. To develop skills and competencies to cater to the needs of children with disabilities in general and special class settings in particular, in cognitive, affective and skill domains.

Contents :

1. Conduct special education assessment using appropriate assessment tools-Selection of 5 cases and develop need based assessment tools.
2. Plan and prepare individualized educational program (IEP)- Develop curriculum modules for selected cases.
3. Develop appropriate teaching learning material, implement, and evaluate and record the performance of the cases.

CROSS CULTURAL PSYCHOLOGY (THEORY)

Paper Code: HDF DOI

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives :

1. The field of cross-cultural psychology helps the students to understand the relationships between cultural context and human behavior.
2. The latter includes both overt behavior (observable actions and responses) and covert behavior (thoughts, beliefs, meanings)

Contents:**UNIT-I**

1. Introduction and Overview: Theoretical Perspectives
 - Meaning , Definition and Importance of Culture, Components of Culture, Culture change and Diversity, Advances - Culture and Technology
 - Nature ,Importance and Scope of Cultural Psychology
 - Conceptual Models of Cross Cultural differences in Eastern and Western Cultures. A global Culture.
 - Research in Western and Non-Western Countries.
 - Methodological Issues in Cross-cultural Psychology

UNIT -II

2. Applied Perspectives
 - Selected Topics in Cross-cultural Research
 - Family Structure and Child Rearing Practices
 - Intercultural Perception and Interaction
 - Cross-Cultural consideration in Health, Happiness and Illness.

UNIT -III

3. Application in Cross-cultural Research

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- Applied aspects of cross-cultural research.
- Development of educational programs,
- Cross-cultural communication; cross-cultural management; training programs for cross cultural transitions.

References:

1. Berry. J.W., Poortinga, Y.H., Pandey J. Dasen, P., Saraswathi, T.S., Segall, M., &Kagitcabasi, C. (1996). Handbook of cross-cultural psychology Vol. 1-3(2nded.). Allyn& Bacon. Boston
2. Berry, J.W., Poortinga, Y.H., Segall, M., Dasen, P.R., (1992). Cross-cultural psychology. Cambridge University Press.Cambridge.
3. Bodn, M.H., (Ed.) (1988). The cross-cultural challenge to social psychology. Newbury PK, Sage.California.
4. Bond, M.H. (Ed.) (1986). The psychology of the Chinese people. Oxford University Press. Hong Kong.
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6. Brislin, R (Ed.) (1990). Applied cross-cultural psychology, Newbury Pk. Sage. California.
7. Lonner, W., & Berry, J.W. (Eds.), (1986). Field methods in cross-cultural research. Newbury Park, Sage.California.
8. Moghaddam, F., Taylor, D & Wright. S. (1993). Social psychology in cross-cultural perspective. W.H. Freeman.New York:
9. Pittu D.Laungani (2007) Understanding Cross-Cultural Psychology, Sage Publications New Delhi.

FAMILY AND COMMUNITY STUDIES (PRACTICAL)

Paper Code: HDF D11

Credits: 4

Max.Marks:100

TeachingHours: 2 Practicals/Week (3 Hours/Practical)

Total Teaching Workload: 30 Practicals/Semester

Objectives :

1. To develop skills and competencies among students to work in communities.
2. To understand various needs of parents and children with in families and plan and implement need based activities for them.

Contents:

1. Observation of daily routine of families and play activities of children in different socio-economic groups.
2. Survey of child rearing and disciplinary practices in rural/slum and urban settings.
3. Early identification and assessment of special children.
4. Working in communities for promoting education, health, hygiene, gender-equality, child and human rights, knowledge regarding HIV aids and income generating activities.

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DISSERTATION II (PRACTICAL)

Paper Code: HDF D12

Credits: 6

Max. Marks: 100

Teaching Hours: 3 Practicals /Week (3 Hours/Practical)

Teaching Workload: 45 Practicals /Semester

Objectives :

1. To enable student to write and present thesis
2. To impart systematic and practical knowledge of research & its applied aspects
3. To develop scientist quality in student

1. Data collection, analysis & interpretation of data in form graphs, charts, tables & others
2. Thesis writing and presentation I
 - Introduction
 - Review of literature
 - Materials and methods
 - Result and discussions
3. Thesis writing and presentation II
 - Conclusion
 - Summary
 - Bibliography
 - Annexures
4. Writing and submission of one research paper based on conducted research findings

References: Refer available journals, research studies and abstract books

Pre-requisite: A student has to clear Dissertation I in IIIrd Semester to be eligible for Dissertation II in IVth Semester.

NEED BASED CARE OF ELDERLY (PRACTICAL)

Paper Code : HDF D13

Credits: 4

Maximum Marks:100

Teaching Periods: 2 Practicals/Week (3 Hours/Practical)

Teaching Load: 30 Practicals/Semester

Objectives :

1. To orient students about various needs of elderly persons
2. The students will learn to work with elderly persons.

Contents :

1. Identification and working with specific programs running for elderly persons.
2. Reporting and presentation with Audio Visual Aids.
3. Organizing and implementing various recreational activities catering to the needs of elderly persons.
4. Interacting with two elderly persons from different demographic profiles.

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M.Sc. Home Science
FOODS AND HUMAN NUTRITION

First Semester Examination, 2016-December

Scheme of Examination:

1. Each theory paper EoSE shall carry 100 marks. The EoSE will be of 3 hours duration. Part 'A' of the theory paper shall contain 10 Short Answer Questions of 20 marks, based on knowledge, understanding and applications of the topics/texts covered in the syllabus. Each question will carry two marks for correct answer.
2. Part "B" of paper will consist of four questions as suggested below except in cases where a different scheme is specified in the syllabus.
 - First question will contain 6 parts out of which 4 to be answered carrying weightage of 5 marks each. Word limit for each answer will be 50-70 words.
 - There shall be 3 questions (with internal choice) of 20 marks each. The word limit for each answer will be 1000 words.
3. Each laboratory EoSE will be of four/six hours duration and involve laboratory experiments/exercises, and viva-voce examination with weight-age in ratio of 75:25.

Course Structure:

The details of the courses with code, title and the credits assigned are as given below.

Abbreviations used:

Subject Code: FHN

Course category:

CCC: Compulsory Core Course

ECC: Elective Core Course

SSECC: Self Study Elective Core Course

SSCCC: Self Study Compulsory Core Course

DIS: Dissertation

Contact hours

L: Lecture

T: Tutorial

P: Practical

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M.Sc. Home Science
FOODS AND HUMAN NUTRITION

First Semester

S. No.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			EoSE Duration (Hrs)	
					L	T	P	Th	P
1.	FHN 701	Nutritional Biochemistry-I	CCC	4	4	0	0	3	0
2.	FHN 702	Food Science and Quality Control	CCC	4	4	0	0	3	0
3.	FHN 703	Human Nutritional Requirements	CCC	4	4	0	0	3	0
4	FHN 711	Human Nutritional Requirements	CCC	6	0	0	9	0	4
5	FHN A01	Research Methodology	ECC	4	4	0	0	3	0
6	FHN A02	Human Physiology	ECC	4	4	0	0	3	0
7	FHN A11	Nutritional Biochemistry-I	ECC	4	0	0	6	0	6
8	FHN A12	Food Science and Quality Control	ECC	4	0	0	6	0	6
9	FHN A13	Human Physiology	ECC	2	0	0	3	0	4
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CCC = 18, ECC = 18

Total = 36 credits

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SEMESTER I

NUTRITIONAL BIOCHEMISTRY- 1 (THEORY)

Paper Code : FHN 701

Credits: 4

Max. Marks : 100

Teaching Hours : 4 Hours / Week

Total Teaching Workload: 60 Hours/ Semester

Objectives :

1. To augment the biochemistry knowledge acquired at the undergraduate level.
2. To understand the basic nature of bio molecules.
3. To become proficient for specialization in nutrition.
4. To understand the mode of action of hormones in the human body.

Contents:

UNIT- I

1. **Carbohydrates:** classification, isomers, rings structure , proof of ring structure , reaction due to CHO group , sugar derivatives of biological importance , polysaccharides (homoglucans and heteroglucans), detailed structure of starch.
2. **Lipids :** Classification , Structure and chemical properties and characterization of
 - Saturated and unsaturated, Fatty acids, essential Fatty acids and their importance
 - Steroids
 - Fat
 - Phospholipids: Rancidity – Definition, types, mechanism, prevention

UNIT- II

3. **Proteins:** Importance, classification of amino acids (Essential and Non Essential Amino Acids), reactions of amino acids, structure of proteins, properties, proof of peptides bond, methods of separation and determination of amino acids and peptides, estimation of amino acid sequence.
4. **Nucleic Acids :** Structure , importance and role of
 - Bases
 - Nucleotides
 - Nucleosides
 - DNA
 - RNA

UNIT- III

5. **Hormones:** mode of action and biochemical role of
 - Interstitial Cell Stimulation Hormones
 - Adreno Cortico Tropic Hormone
 - Follicle Stimulating Hormone
 - Growth Hormone
 - Thyroid Stimulating Hormone
 - Steroidal Hormone (Adrenal Cortex, Sex Hormones)
6. **Blood Chemistry** Composition, haemoglobin, erythropoeisis, plasma proteins (Types, properties and methods of separation of plasma proteins), coagulation of blood.

References :

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1. Martin DW, Mayes PA and Rodwell VW. Harper's Review of Biochemistry. 19th Edition. I. ANGE Medical Publications, MARUZEN Asia. 1983.
2. Pike RL and Brown ML. NUTRITION an Integrated approach. 3rd Edition, John Wiley and Sons, New York, 1984.
3. Oser BL. Hawk's Physiological Chemistry. 14th Edition. McGraw Hill Book co. New York, 1965.
4. Nelson DM and Core MM. Principles of Biochemistry 4th ed. Freeman & Co., 2005.
5. Devlin TM. Text Book of Biochemistry with clinical Correction, 5th ed. Wiley & Sons, 2002.
6. Chatterjee MN, Shinde R. Textbook of Medical Biochemistry. 4th Edition, Jaypee Brothers Medical Publishers (P) Ltd. New Delhi, 2000.
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8. Murray RK, Granner DK, Meyer PA and Rodwell VW. Harper's Illustrated Biochemistry. 26th edition. McGraw Hill Asia, 2003.
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10. Lehninger AR. Biochemistry. 2nd Edition. Kalyani Publishers, 1975.
11. White A, Handler P and Smith EL. Principles of Biochemistry. McGraw Hill Book Co., New York, 1959.

FOOD SCIENCE AND QUALITY CONTROL (THEORY)

Paper Code : FHN 702

Credits: 4

Max. Marks : 100

Teaching Hours : 4 Hours / Week

Total Teaching Workload: 60 Hours/ Semester

Objectives :

1. To enable students to understand the physico-chemical properties of foods.
2. To make the students aware about effects of common food processing techniques on food.
3. Understand and know various aspects of food product development.

Contents :

UNIT- I

- | | |
|----|---|
| 1. | Physical, chemical and functional properties of protein, carbohydrates, lipids, water, pigment and flavours. |
| 2. | Physical Properties of Food -Hydrogen – ion concentration, oxidation – reduction potentials, surface tension, adsorption, viscosity, plasticity, iso-electric points or proteins, colloidal chemistry of foods - sols, gels, foams and emulsions. |

UNIT- II

- | | |
|----|---|
| 3. | Food Processing Technique: freezing, thermal processing, dehydration, irradiation |
| 4. | Chemical, physical nutritional alteration occurring in food products during food processes: freezing, thermal processing, dehydration, irradiation and environmental control. |
| 5. | Quality control and management. |

UNIT- III

- | | |
|----|--|
| 6. | Important food quality attributes <ul style="list-style-type: none"> • Sensory quality - colour, texture, flavor and taste • Microbiological quality nutritional quality evaluation for food products. • Food Adulteration • Self life studies |
| 7. | New Product Development |

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- Market Research
- Consumer dynamics
- Process of development and standardization
- Labeling
- Marketing
- Quality Evaluation
- Entrepreneurship

References :

1. Manay NS and Sheela Krishnaswamy M. Foods Facts and Principles. 3rd edition, New Age International (P) Limited, publishers, New Delhi, 2008.
2. Potter NM. Food Science, The AVI Publishing Co., Inc., Connecticut, 1995.
3. Fennema OR. Food Chemistry. Marcell Dekker, Inc., New York, 1996.
4. Charley H. Food Science, John Wiley and Sons, Inc., New York, 1982.
5. Lowe B. Experimental Cookery. John Wiley and Sons, Inc. New York, 1955.
6. Meyer LH. Food Chemistry, CBS Publishers and Distributors, New Delhi, 2004.
7. Kramer A and Twig B. Quality Control for the Food Industry. Vol. I and II, AVI Publishing Co., London, 1984.
8. Hubbard MR. Statistical quality control for the food industry. Van Nostrand Reinhold, New York, 1990.
9. Fuller GW. New Food Product Development from Concept to Market Place, CRC Press, New York, 1999.
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11. Chandrashekhar U. Food Science and Applications in Indian Cookery, Phoenix Publishing House, 2002.

HUMAN NUTRITIONAL REQUIREMENTS (THEORY)

Paper Code : FHN 703

Credits: 4

Max. Marks : 100

Teaching Hours : 4 Hours/Week

Total Teaching Workload : 60 Hours/Semester

Objectives :

1. To understand the basis of human nutritional requirements and recommendations through life cycle.
2. To understand the methods of evaluating protein quality and improving the same.
3. To understand the nutritional requirements in special conditions.

Contents :

UNIT- I

1. Nutritional requirements and recommended allowances for macro and micro nutrients for the entire life span (infancy to old age).
2. A critical review of the following:
 - Methods of determining requirements and allowances and body weights
 - Energy requirements- units, definition, assessment, methods for determining requirements, energy requirements for infants, children, adolescents, adults, pregnancy, lactation.
 - Protein requirements – protein quality and protein requirements, human amino acid requirements, quality of protein, methods for arriving at RDAs for Indians, protein

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	<p>requirements during pregnancy, lactation, growth – infants, children and adolescents, adults, protein energy ratio</p> <ul style="list-style-type: none"> • Lipid requirements – functions of fatty acids, recommendations of dietary fat, RDAs for Indians, sources of fat, recommended intakes, quality of fat. • Dietary fibre – nutritional and health significance, requirements • Mineral requirements -calcium, phosphorus, magnesium ,sodium, potassium, iron and zinc- Dietary requirements for different physiological ages and states. Methods for estimating requirements, dietary deficiency, biochemical functions, stores, sources, • Trace elements requirements – iodine requirements, deficiency, losses, RDAs
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UNIT- II

3.	<p>A critical review of the following:</p> <ul style="list-style-type: none"> • Vitamin requirements – Water soluble vitamins – thiamine, riboflavin, niacin, pyridoxine, folic acid, Vitamin B12. ascorbic acid-Functions , sources, requirements. deficiency, stability during processing • Fat soluble vitamins - vitamin A and vitamin D– significance, deficiency, dietary sources, requirements, role.
4.	Dietary guidelines for Indians
5.	Critical evaluation of International recommended dietary allowances – American, Canadian, FAO/WHO/UNU.
6.	<p>Nutrition requirements for special conditions</p> <ul style="list-style-type: none"> • Natural calamities and emergencies –floods, earthquakes, famine/drought • Gastronomics • High altitude • Extreme environmental temperatures-hot and cold

UNIT- III

7.	<p>Evaluation of protein quality</p> <ul style="list-style-type: none"> • Analytical methods for the determination of nitrogen and amino acids in foods. • Evaluation of protein quality of foods from their amino acids content • Biological methods • Clinical methods • Biochemical methods • Relationship of stress and physiological state to the biological evaluation of protein quality.
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References :

1.	Evaluation of protein quality. Publication 1100, National Academy of Sciences, National Research Council, Washington, DC, 1963.
2.	Nutritional evaluation of protein foods. PL Pellet and VR Young, The United Nations University, 1980.
3.	Raghuramulu N, Madhvan Nair K and Kalyansundaram S. A laboratory of manual techniques, NIN & ICMR Hyderabad, 2003.
4.	Swaminathan M. Essentials of Foods and Nutrition, The Bangalore Printing & Publishing Co. Ltd. II ed., 2008.
5.	Goodhart and Shills ME. Modern Nutrition in Health and Disease, Henry Kimpton Publishers, USA, 1974.
6.	Pike RL and Brown ML. Nutrition an Integrated Approach, John Wily and Sons, NewYork, 1984.
7.	Energy and protein requirements. Report of Joint FAO/WHO/UNU Experts Consultation,

Technical Report Series of No. 724, WHO, Geneva, 1985.

8. Anonymous, Nutrient Requirements and Recommended Dietary Allowances for Indians, ICMR, Hyderabad, 2010.
9. Human energy requirements. Report of Joint FAO/WHO/UNU Expert Consultation, FAO Technical Report Series No. 1, WHO, Geneva, 2004.
10. Protein and amino acid requirements in human nutrition. Report of Joint FAO/WHO/UNU Expert Consultation, Technical Report Series No. 935, WHO, Geneva, 2007.
11. Word Review of Nutrition and Dietetics, Vol. 32, Kargel, Basel, 1978.
12. Vitamin and Mineral Requirements in Human Nutrition, Report of Joint FAO/WHO Expert Consultation on Human vitamin and mineral requirements. WHO, Geneva, 2004.
13. Indicators for Assessing Vitamin A Deficiency and their Application in Monitoring and Evaluating Intervention Programme. Micronutrient series. WHO/NUT/96.10. WHO, Geneva, 1996.

HUMAN NUTRITIONAL REQUIREMENTS (PRACTICAL)

Paper Code : FHN 711

Credits: 6

Max. Marks:100

Teaching Hours :3 Practicals/Week (3 Hours/ Practical)

Total Teaching Workload : 45 Practicals/Semester

Objectives :

1. To calculate requirements of energy, protein, minerals and vitamins for different age groups
2. To compare intakes with the RDAs
3. To evaluate protein quality by using different methods

Contents:

Practicals

1. **Energy requirements**
 - Calculation of BMR using different methods- 3 sets of data
 - Calculation of energy requirement for
 - Reference adult man and woman
 - Adults of different body weights and age categories
 - Infants
 - Children of 2-3 ages
 - Adolescents of 2-3 ages
 - Pregnant woman
 - lactating woman
 - Energy balance study for one week.
 - Calculation of energy requirement by indirect calorimetry
2. **Protein requirements**
 - Calculation of protein allowances for
 - Reference adult man and woman
 - Infants, and children of 2-3 ages
 - Adolescents of 2-3 ages
 - Pregnant woman
 - lactating woman
 - Protein energy ratio for different age groups
3. **Lipids**

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- Comparison of fatty acid composition profile of various edible fats and oils available in the market.
- Critical analysis of labelling of processed foods for fatty acid composition profile.
- Determination of the types of fat and fat composition of the diets through 24 hour recall of a subject and compare it with suggested values for SFA, PUFA, MUFA and Essential fatty acids.
- Calculation of dietary fatty acids according to FAO/WHO recommendations for
 - Adult man and woman
 - Pregnant and lactating woman
 - Children of different ages
 - Adolescents of different ages

4. **Fibre**

Determination of dietary fibre through 24 hour recall and comparison with suggested values for fibre

5. **Minerals & Vitamins**

- Estimation of calcium requirement through factorial approach
 - Visit to DEXA centre for observation of bone density measurement.
 - Estimation of iron requirement during pregnancy
 - Research design for calcium and iron balance
 - Determination of Vitamin C requirement using load test
 - Make a list of foods which fulfill one day's requirement of the following nutrients. i)
- Calcium
- ii) Sodium
 - iii) Iron
 - iv) Vitamin A
 - v) Potassium
 - vi) Folic acid

6. **Dietary Guidelines**

Power point presentation of Dietary Guidelines for Indians.

7. **Nutritional requirements for Disaster Management.**

- Plan a day's menu and rations for a relief camp.

8. **Evaluation of protein quality**

- Calculation of chemical score of different foods and food products.
- Calculation of NDp Cal% of
 - A snack meal
 - A mix for PDS system.

Research design for evaluation of protein quality by biological and clinical methods.

RESEARCH METHODOLOGY (THEORY)

Paper Code : FHN A01

Credits: 4

Max. Marks : 100

Teaching Hours : 4 Hours/Week

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Total Teaching Workload: 60 Hours/Semester	
Objectives :	
<ol style="list-style-type: none"> 1. To understand the basic concepts of research methodology. 2. To be able to understand the various steps of research methods. 3. To enable the students to understand various research designs, sampling techniques, methods of collecting data. 4. To enable the students to prepare and present report for dissertation purpose. 	
Contents:	
UNIT- I	
1.	Research purpose and objectives.
2.	Definition and Identification of research problem, selection of problem, hypotheses, basis assumption and limitation of problem.
3.	Review of literature: Importance, sources and writing review of literature.
4.	Research designs: Purpose and types.
UNIT-II	
5.	Technique of sampling- Census and sampling methods, probability and non-probability sampling procedures, sample size.
6.	Data gathering instruments, measurements and scales, reliability and validity of measuring instruments- Questionnaire, Schedule, Score card, Checklist.
7.	Methods of collecting data: Questionnaire, interview technique, observation, case study, focus group discussion.
UNIT-III	
8.	Planning, executing and analysis of large scale surveys with special emphasis of surveys in Home Science.
9.	Presentation and preparation of report for dissertation publication.
10.	Bibliography: Importance of method of writing references of book, journals, proceedings and websites.
References :	
<ol style="list-style-type: none"> 1. Simpson, George, Kafka, Fritz. Basic statistics: a textbook for the first course , Oxford and IBH Publishers, New Delhi, 1977. 2. Taro Y. Sampling Theory, Prentice-Hall Publishers, New Delhi, 1967. 3. Snedecor and Cochran, Statistics Methods, Oxford and I.B.H. Publishers, Calcutta, 1968. 4. Gupta SP. Statistics Methods, Sultan Chand and Co., New Delhi, 2008. 5. Good CV and Carter DE. Methods of Research-Educational Psychological Application, Century Craft, New York, 1954. 6. Kerlinger FA. Foundation of Behavioral Research, Century Craft, New York, 1966. 7. Young PV and Schind CG. Scientific Social Survey and Research, Prentice Hall, New Delhi, 1968. 8. Philips BS. Social Research, Strategy and Tactics, MacMillan, New York, 1976. 9. Mussed P. Hand book of Research Methods in Child Development, John Wiley & Sons Inc, 1960. 10. Devdas RP and Kulandaivel. Hand Book of Research Methodology, Sri Ram Krishna mission Vidhyalaya, 1971. 11. Krishnaswamy RP. Methodology of Research in Social Sciences, 1st edition, Himalaya Publishing house. Mumbai, 1993. 	

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HUMAN PHYSIOLOGY (THEORY)

Paper Code : FHN A02

Credits: 4

Max. Marks : 100

Teaching Hours : 4 Hours/Week

Total Teaching workload: 60 Hours /Semester

Objectives :

1. To familiarize the students with the basic anatomy of human body.
2. To enable the students to understand the physiological processes.

Contents :

UNIT- I

Hours

1. Cell structure and functions- levels of cellular organizations and functions-organelles, nucleus, cytoplasm, tissues and systems. Functions of lysosomes, endoplasmic reticulum, Golgi apparatus and mitochondria, Mitosis. Structure of cell membrane, active and passive transport of nutrients and metabolites, intercellular communications.
2. Endocrine system: structure, function, storage, secretion, regulation of hormonal secretion.
3. Digestive System: Structure and function of various organs of gastro-intestinal tract, secretory, digestive and absorptive functions. Role of liver, pancreas, gall bladder and their dysfunction. Motility and hormones of the GIT.

UNIT- II

4. Respiratory System: Structure, function, mechanism of respiration-Pulmonary ventilation, Role of lungs in the exchange of gases. Transport of oxygen and CO₂ in the lungs, blood and tissues. Role of hemoglobin and buffer systems. Regulation of respiration.
5. Circulatory System: Structure and function of the heart and blood vessels. Regulation of cardiac output, cardiac cycle, blood-pressure and factors affecting it.
6. Excretory System: Anatomy and physiology of kidneys, structure and functions of nephron. Urine formation. Normal and abnormal constituents of urine. Role of kidney in maintaining pH of blood, water, electrolytes, acid-base balance, diuretics.

UNIT- III

7. Physiological functions of Pituitary, Thyroid, Parathyroid, Adrenal and Reproductive Hormones.
8. Regulation of body temperature: Thermo genesis, thermolysis, pyrexia, hypothermia, role of skin in maintaining body temperature.
9. Musculo-skeletal system: structure and functions of bone, cartilage and connective tissue and muscle fibres. Disorder of the skeletal system. Types of muscles, structure and function.
10. Changes in muscle and bone mass during ageing and disease. Major muscles used for voluntary and involuntary actions.
11. Exercise physiology

References :

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1. Guyton AC and Hall JB. Textbook of Medical Physiology 9th Edition, W.B. Saunders, Prime Books (Pvt.) Ltd Bangalore, 1996.
2. Wilson KJW and Waugh A. Ross and Wilson Anatomy and Physiology in Health and Illness 8th Edition, Churchill Livingstone, 1996.
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4. Kale CA and Neil F Samean. Wright's Applied Physiology, 1974.
5. Griffith's M. An introduction to Human Physiology, MacMillian and Co., 1972.
6. Mc Ardle WD, Katch FI and Katch VL. Exercise physiology, energy nutrition and human performance 4th Edition, Williams and Williams, Baltimore, 1996.
7. Jain AK: Textbook of Physiology, Volume I and II, Avichal publisher Co., New Delhi, 2012.

NUTRITIONAL BIOCHEMISTRY – I (PRACTICAL)

Paper Code : FHN A11

Credits: 4

Max. Marks : 100

Teaching Hours : 2 Practicals / Week (3 hours/Practical)

Total Teaching Workload : 24 Practicals/ Semester

Objectives :

1. To demonstrate the need for careful planning and organization of laboratory work and skilful execution of practical/experiments.
2. To develop an understanding of the principles of various biochemical techniques.
3. To develop competence in biochemical estimations.
4. To apply the knowledge acquired from the biochemical estimation to human nutrition.

Contents :

Practicals

1.	Principles in biochemistry – Introduction to working principles of : <ul style="list-style-type: none"> • Spectrophotometry • Chromatography • Electrophoresis • Acid base titration, redox titration 	2
2.	Cleaning of glassware with soap, chromic acid and distilled water	2
3.	Titrimetric estimations <ul style="list-style-type: none"> • Determination of strength of acids and bases (single and double titration) • Oxidation reduction titration - by $KMnO_4$ • Estimation of vitamin C in lemon juice or any other fresh food stuff. 	6
4.	Preparation of buffers and measurements of their pH with indicators and pH meter.	3
5.	Estimation of Protein by Kjeldahl's Method.	5
6.	Colorimetric estimations (in unknown solution) <ul style="list-style-type: none"> • Glucose • Cholesterol 	6

FOOD SCIENCE AND QUALITY CONTROL (PRACTICAL)

Paper Code : FHN A12

Credits: 4

Max. Marks : 100

Teaching Hours : 2 Practicals / Week (3 Hours/Practical)

Total Teaching Workload : 24 Practicals/Week

Objectives:

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1. To develop an understanding of the principles of various techniques of nutritional assessment.
2. To develop competence in recording and interpretation of anthropometric measurements.
3. To develop skills in conducting dietary surveys and data interpretation.
4. To develop understanding and skills in clinical observation.

Contents :

Practicals

1. Physical examination of various food grains.
2. Detection of adulteration: Milk, turmeric powder, pure ghee, wheat flour, khoa.
3. Determination of the Moisture content in two raw and two processed foods.
4. Determination of the acid insoluble ash in two raw and two processed foods,
5. Determination of the Crude fibre content in two raw and two processed foods.
6. Determination of the Protein Content in two raw and two processed foods using kjeldahl method.
8. Determination of fat content in two raw and two processed foods.
9. Determination of the Taste Threshold for the Different Sensations – sweet, Salty, Sour.
10. Survey of convenience and ready to eat foods available in markets food list with nutrition, composition and food label.
11. Systematic development of a new food product and its standardization within the BIS stipulated food standards and regulation and evaluate quality parameters for acceptability, labelling and cost of the finished product.
12. Visit to small scale food product unit

HUMAN PHYSIOLOGY (PRACTICAL)

Paper Code : FHN A13

Credits: 2

Max. Marks : 100

Teaching Hours : 1 Practical / Week (3 Hours/Practical)

Total Teaching Workload: 15 Practicals /Semester

Objectives:

1. To make students understand the various Biochemical techniques used in for diagnosis of disease..
2. To make students understand test of fitness.

Contents :

1. Use of Spirometer to estimate respiratory quotient visit for demonstration
Calculation of values for different age groups and ages
 - Adults
 - Children & adolescents
2. Estimation of hemoglobin by two techniques to be used in
 - field
 - laboratory
3. Estimation of Blood pH
4. Measurement of blood pressure
 - Conditions required for measurement
 - Measurement of different age groups
5. Tests to measure physical fitness-
 - Fitness test
 - Physical endurance test
6. Urine Estimations

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- Albumin in urine
- Glucose in urine
- Acid base balance in urine

7. Case study of endocrine disorder patient

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Second Semester *June 2017*

S. No.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			EoSE Duration (Hrs.)	
					L	T	P	Thy	P
1.	FHN 801	Nutritional Biochemistry- II	CCC	4	4	0	0	3	0
2.	FHN 802	Food Microbiology And Food Safety	CCC	4	4	0	0	3	0
3.	FHN 803	Human Nutritional Problems	CCC	4	4	0	0	3	0
4	FHN 811	Human Nutritional Problems	CCC	6	0	0	9	0	4
5	FHN B01	Statistics	ECC	4	4	0	0	3	0
6	FHN B02	Food processing	ECC	4	4	0	0	3	0
7	FHN B11	Nutritional Biochemistry – II	ECC	4	0	0	6	0	6
8	FHN B12	Food Microbiology	ECC	4	0	0	6	0	4
9	FHN B13	Food processing	ECC	2	0	0	3	0	4
				36					

CCC = 18,

ECC = 18

Total = 36 credits

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SECOND SEMESTER

NUTRITIONAL BIOCHEMISTRY– II (THEORY)

Paper Code : FHN 801

Max. Marks : 100

Credits: 4

Teaching Hours : 4 Hours / Week

Total Teaching Workload: 60 Hours/ Semester

Objectives :

1. To understand the basic nature and role of bio molecules.
2. To understand the mechanisms adopted by the human body for regulation of metabolic pathways.
3. To get an insight into interrelationships between various metabolic pathways.
4. To link metabolic events occurring at the cellular level.
5. To become proficient for specialization in nutrition.

Contents:

UNIT- I

1. Vitamins

Chemistry and biochemical role of

- Water soluble vitamins: B-Complex and C
- Fat soluble vitamins: A,D,E and K

2.

Minerals

- Biochemical role of minerals.

UNIT- II


3. Enzymes

Classification , co-enzymes , methods of isolation , purification and characterization , theories and mechanism of enzyme action , factors affecting reaction of enzyme – effect of time , temperature , pH substrate enzyme activators and inhibitors (types of inhibitors) , Km – it's derivation and significance , elements of thermodynamics , - enthalpy , entropy and free energy , active site and specificity of enzymes.

4.

Intermediary metabolism and it's regulation

- Carbohydrates – Glycolysis, TCA cycle, respiratory chain, high energy link, biological redox potential, Gluconeogenesis, hexose monophosphate shunt.
- Lipids - α , β and ω oxidation of fatty acids , β oxidation of odd and even number fatty acids , synthesis of fatty acids , phosphatidic acid , ketosis , synthesis of cholesterol.


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- Proteins – absorption and conversion of amino acids , nitrogen fixation , degradation of ammonia and removal of amino acids through deamination , transamination , decarboxylation and urea cycle.

UNIT- III

5. **Nucleotides and Nucleic Acids** – separation and determination of nucleotides and nucleic acids.

6. **Organ interrelationship in the metabolism**

- Transport between organs – blood.
- The liver and its function in distribution of nutrients
- Adipose tissue
- Skeletal muscles
- The brain
- The heart
- Diabetes mellitus

7. **Metabolic interplay in cancer**

References :

1. Berg JM, Tymoczko JL and Strayer L. *Biochemistry*. 5th ed. NY: WH Freeman; 2002.
2. Burtis CA and Ashwood ER. Bruns DE and Sawyer BG. *Tietz Fundamentals of Clinical Chemistry*. 6th ed. PA: Saunders; 2008.
3. Clark, John M, and Switzer RL. *Experimental Biochemistry*. 7th ed. NY: WH Freeman; 1977.
4. Conn EE and Stumpf PK. *Outlines of Biochemistry*. 5th ed. NY: John Wiley & Sons Inc; 1987.
5. Devlin TM. *Text Book of Biochemistry with Clinical Correction*. 7th ed. John Wiley & Sons Inc; 2010.
6. Fruton JS and Simmonds S. *General Biochemistry*. 2nd ed. NY: John Wiley & Sons Inc; 1958.
7. Harper HA, Rodwell VW and Mayes PA. *A Review of Physiological Chemistry*. 17th ed. Los Altos, CA: Lange Medical Library; 1979.
8. Harrow B and Mazoor A. *A Textbook of Bio-chemistry*. 7th ed. PA: Saunders; 1958.
9. Hawk PB and Oser BL and Summerson BH. *Practical Physiological Chemistry*. 12th ed. PA: The Blakiston Company; 1947.
10. McDevitt ME and Mudambi SR. *Human Nutrition: Principles and Applications in India*. 1st ed. ND: Prentice Hall Inc; 1973.
11. Nelson DL and Cox MM. *Lahniger: Principles of Biochemistry*. 4th ed. NY: WH Freeman; 2005.
12. Pike RL and Brown ML. *Nutrition: An Integrated Approach*. 3rd ed. NY: John Wiley & Sons Inc; 1984.
13. Robinson CH and Lawler M. *Normal and Therapeutic Nutrition*. 17th ed. USA: Macmillon; 1990.
14. Rodwell VW, Bender AD, Botham KA, Kennelly PJ and Weil PA. *Harpers Illustrated Biochemistry*. 30th ed. NY: McGraw Hill Education; 2015.

15. White A, Handler P and Smith EL. *Principles of Biochemistry*. NY: McGraw Hill; 1973.

FOOD MICROBIOLOGY AND FOOD SAFETY (THEORY)

Paper code: FHN 802

Credits : 4

Max. Marks:100

Teaching Hours :4 Hours/Week

Total Teaching Workload :60 Hours/Semester

Objectives :

1. To understand the role of micro-organisms in food, food spoilage and to understand advanced techniques of food preservation.
2. To learn about food-borne infections and intoxication.
3. To understand the criteria for microbiological safety in various food operations to avoid public health hazards due to food contamination.
4. To be able to understand the food safety and criteria for microbiological safety in various food operations to avoid public health hazards due to food contamination.

Contents:

UNIT- I

1. History and development of food microbiology
2. Micro-organisms of importance in food- bacteria, mold and yeast. Classification, morphology and physiology.
3. Factors affecting growth of micro-organisms- pH, moisture, oxidation reduction potential, nutrients, temperature.
4. Principles of preservation
 - General principles of food preservation: asepsis, removal, anaerobic conditions
 - Preservation by use of
 - drying,
 - low temperatures
 - high temperatures
 - irradiation
 - food additives

UNIT- II

5. Contamination, preservation, and spoilage of different kinds of foods
 - Cereals and it's products
 - Sugar and it's products
 - Vegetables and fruits
 - Eggs
 - Milk and it's products
 - Canned foods
6. Microbiology of fermented foods.
 - Vinegar, Cheese, Beer
 - Indian fermented foods- Idli, Dosa, Vada, Curd
7. Single cell proteins (SCP)
 - Introduction to single cell proteins, types of single cell proteins, production of SCP.

8.	<p style="text-align: center;">advantages and disadvantages</p> <p>Probiotics</p> <p>Introduction to probiotics, Overview of gut environment, types of probiotics, mechanism of action, health benefits, prebiotics</p>
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UNIT -III-

9.	<p>Role of Microbes in health and disease</p> <ul style="list-style-type: none"> • Public health Hazards and Food borne illnesses due to microbial contamination <ul style="list-style-type: none"> Causes, food association, habitat, toxins, disease and symptoms, prevention of the following - Food borne intoxications <ul style="list-style-type: none"> ▪ Botulism ▪ Staphylococci ▪ Mycotoxicosis Food borne infections <ul style="list-style-type: none"> ▪ Salmonella ▪ E. Coli ▪ Clostridium
10.	<p>Food Safety requirements for different food service establishments and safety measures</p> <p>(a) Definition of food safety, regulatory agencies, WHO and FAO</p> <p>(b) Food Safety regulations and laws in India</p> <ol style="list-style-type: none"> i. Food Safety and Standards Act 2006 ii. Food safety and Regulations 2011 iii. Prevention of Food Adulteration (4th Amendment) Rules, 2011 <p>(c) Food security assurance systems</p> <ol style="list-style-type: none"> i. Good Hygienic Practices (GHP) ii. Good Manufacturing Practices (GMP) iii. Food Safety Management Systems- HACCP iv. Food Safety Management System- ISO 22000 v. Quality Management System- ISO 9001

References :

1. Frazier WC and Westhoff DC. Food Microbiology, McGraw Hill Co. Ltd., New Delhi, IV ed., 2008.
2. Ananthanarayan R and Paniker's CKJ. Text book of Microbiology, VIII ed., International Universities Press, US, 2009.
3. Adams MR and Moss MO. Food Microbiology. Royal Society of Chemistry, UK, III ed., 2007.
4. Jay MJ, Loessner MJ and David GA. Modern Food Microbiology. Food Science Text Series, VII ed., 2005
5. Ray B and Bhunia A. Fundamental Food Microbiology. CRC Press, Washington DC, 4th ed., 2007.
6. Montville TJ and Mathews KR. Food Microbiology-An Introduction. American Society for Microbiology, II ed., 2008.

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7. Banwart GJ. Basic Food Microbiology. AVI Publishing Co., Westport, Conn. (USA), II ed., 1995.
8. Khetarpaul N. Food Microbiology. Daya Publishing House, Delhi, 2006
9. Harrigan WF. Laboratory Methods in Food Microbiology. Gulf Professional Publishing, Oxford, UK, 1998.
10. Garg N, Garg KL and Mukerji KG. Laboratory Manual of Food Microbiology. IK International Pvt. Ltd., New Delhi, 2010.
11. Melandsborough L. Food Microbiology Laboratory. CRC Press, Florida, US, 2004.
12. Food Microbiology and Safety Practical Manual. MFNL-003. Indira Gandhi National Open University of Continuing Education The Training Manual For Food Safety Regulators Who Are Involved In Implementing Food, Safety And Standards Act 2006 Across The Country , Volume II Food Safety Regulations and Food Safety management.
13. Foods Safety and Standards Authority Of India (Ministry Of Health and Family Welfare)
14. FDA Bhavan, Kotla Road, New Delhi – 110 002 Website: www.fssai.gov.in
15. Heritage J, Evans EGV and Killington RA. Introductory Microbiology. III Series. Combridge University Press, Great Britain, 1996.
16. Bhatnagar A. Microbiology (A Remediation Study), RBSA Publishers, Jaipur, 1995.
17. Sulla SB and Shantharam S. General Microbiology. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi, 2000.
18. Bella C, Neaves P and Williams AP. Food Microbiology and Laboratory Practice. Blackwell Publishing, Oxford, 2006.

HUMAN NUTRITIONAL PROBLEMS (THEORY)

Paper code: FHN 803

Credits : 4

Max. Marks:100

Teaching Hours :4 Hours/Week

Total Teaching Workload :60 Hours/Semester

Objectives:

1. To create understanding about nutritional assessment techniques applicable for individuals and community.
2. To create understanding of various nutritional problems.
3. To create understanding about various inborn errors of metabolism and their dietary management.

Contents:

UNIT- I

1. Prevalence, etiology, biochemical and clinical manifestations, diagnostic technique, preventive and therapeutic measures for the following nutritional problems:
 - Protein Energy malnutrition
 - Vitamin A deficiency
 - Anaemia
 - Iodine Deficiency Disorders
 - Fluorosis
 - Rickets, osteomalacia and osteoporosis
 - Beriberi
 - Pellagra

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- Scurvy
- Zinc Deficiency

UNIT -II

2. Assessment of Nutritional Status, Various techniques for assessment of nutritional status:
- Anthropometric measurements:
 - Definition, measurements, tools/instruments.
 - Techniques for measurements, standards for references, indices, classification, interpretation of data.
 - Use of anthropometry for onetime assessment, growth monitoring and emergency situation.
 - Biochemical estimations for diagnosis of protein energy malnutrition, vitamin A deficiency, anaemia, iodine deficiency disorders, fluorosis: Parameters, techniques for estimation, reference value
 - Clinical examination
 - Dietary survey
 - Vital statistics

UNIT- III

3. Introduction to causative factors, biochemical and clinical manifestation, treatment and therapeutic measures of following Inborn errors of metabolism:
- Disorders of amino acid metabolism i.e.
 - Phenylketonuria,
 - Hypertyrosinaemia,
 - Hypervalaeamia,
 - Hyperhistidinaemia,
 - Hyper lysinaemia,
 - Homocystinuria.
 - Carbohydrate metabolism i.e. Pentosuria, galactosaemia
 - Lipid metabolism i.e. Hyper chylo-micronaemia, pure hyper-cholesterolaemia
4. Food Safety and contamination
- Naturally occurring toxins and anti-nutritional factors :
 - Lathyrism,
 - Epidemic dropsy.

References :

1. Vir SC. Public Health Nutrition in Developing Countries Pt 1 and 2 . Published by Wood head publishing India PVT LTD, New Delhi. Cambridge, Oxford, Philadelphia.
2. Sehgal S and Raghuvanshi Rita S Textbook of Community Nutrition, Indian Council of Agricultural Research, Published by: Directorate of Information and Publication of Agriculture, Indian Council of Agriculture Reserach, KrishiAnusandhanBhavan, Pusa, New Delhi-110012

3. Bami MS, Rao PN and Reddy V. Textbook of Human Nutrition, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi. 1996.
4. Robinson CH and Lawler MR. Normal and Therapeutic Nutrition, Macmillan, New York, 1996.
5. Waterlow JC. Protein Energy Malnutrition, Edward Arnold, A division of Hodder and Stoughton, 1992.
6. Sachdeva HPS and Chaudhary P (Eds). Nutrition in Children: Developing country concerns, Department of Pediatrics, Maulana Azad Medical College, New Delhi, 1994.
7. McLaren DS. A colored Atlas and Textbook of Diet-Related Disorders, 1992.
8. Passmore R and Eastwood MR. Human Nutrition and Dietetics, ELBS, Churchill Livingstone, London, Baltimore, 1986.
9. De Mayer EM. Preventing and Controlling iron deficiency anaemia through Primary Health Care, WHO, 1989.
10. Jelliffe DS. The Assessment of Nutritional status of the community, WHO Geneva, 1966.
11. Gopaldas T and Sheshadri S. Nutritional Monitoring and Assessment, Oxford University Press, New Delhi, 1987.
12. Shukla PK. Nutritional problems of India, Prentice Hall of India Private Limited, New Delhi, 1982.
13. Shills ME, Young VR and Bombay KN. Modern Nutrition in Health and Disease, Varghese Company, VII Edition, 1988.
14. Beaton GH and Bengoa JM. Nutrition in preventive Medicine. The major deficiency syndrome Epidemiology and approaches to control, World Health Organization, Geneva, 1976.
15. Talwar GP. Textbook of Biochemistry and Human Biology, Prentice Hall of India Pvt. Ltd., New Delhi, 1980.

HUMAN NUTRITIONAL PROBLEMS (PRACTICAL)

Paper code: FHN 811

Credits : 6

Max. Marks: 100

Teaching Hours : 3 Practicals/ Week (3 Hours/ Practical)

Total Teaching Workload : 45 Practicals/Semester

Objectives

1. To develop an understanding of the principles of various techniques of nutritional assessment.
2. To develop competence in recording and interpretation of anthropometric measurements.
3. To develop skills in conducting dietary surveys and data interpretation.
4. To develop understanding and skills in clinical observation.

Contents:

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1.	Preparation of event calendar of past five years for assessment of age.
2.	<p>Assessment of nutritional status of infants using anthropometric measurements :</p> <ul style="list-style-type: none"> • Preparation of questionnaire, learn techniques of recording weight length and MUAC. • Data collection (at least 10 infants) • Data interpretation using WHO Z scores and report. • Data interpretation using WHO growth.
3.	<p>Assessment of nutritional status of preschool children using anthropometric measurements:</p> <ul style="list-style-type: none"> • Preparation of questionnaire , learn techniques of recording height and weight using bathroom weighing scale as well as Salter weighting balance and MUAC. • Data collection (at least 10 preschool children). • Data interpretation using WHO growth standards and report writing. <p>Assessment of nutritional status of school going children using anthropometric measurements :</p>
4.	<ul style="list-style-type: none"> • Preparation of questionnaire, data collection (at least 10 children). • Data interpretation using WHO growth standards and report writing.
5.	<p>Assessment of nutritional status of adolescent boys and girls using anthropometric measurements.</p> <ul style="list-style-type: none"> • Preparation of questionnaire and data collection. • Data interpretation using WHO growth standards and BMI for age and height for age indices and report writing.
6.	<p>Assessment of nutritional status of adults using anthropometric measurements.</p> <ul style="list-style-type: none"> • Preparation of questionnaire, learning techniques of measuring waist circumference and hip circumference and calculation of WHR. • Data collection.
7.	<p>Determination of haemoglobin level in blood sample of any age group and interpretation and comparison of results using: Sahli's, hemocek and cyanmethhemoglobin technique</p>
8.	<p>Assessment of nutritional anaemia among college going students using haemoglobin estimation and clinical signs and symptoms of anaemia.</p> <ul style="list-style-type: none"> • Preparation of questionnaire, learn the techniques. • Data collection (at least 10 students) • Data interpretation and report writing

9. Assessment of food and nutrient availability of inmates of any hostel/ orphanage /old age home etc. using food inventory methods.
 - Preparation of questionnaire and learn the techniques.
 - Data collection on 1st day of week.
 - Data collection on 7th day of week.
 - Data interpretation and report writing.
10. Assessment of food and nutrient intake using 24 hours dietary recall methods
 - Preparation of questionnaire and learn the technique.
 - Standardization of recipes , using standardized cups , spoons , glasses, preparation of cut outs
 - Data collection, conversion of cooked foods into raw ingredients and food and nutrient calculation, using Diet Cal Software and report writing.
11. Assessment of food consumption pattern using diet history method.
 - Preparation of questionnaire, learn the technique.
 - Data collection, interpretation of results and report writing.
12. Assessment of diet and nutrient intake using qualitative as well as quantitative food frequency questionnaire.
13. Visit to malnutrition treatment centres in hospital – Observation of clinical symptoms of PEM and other symptoms of SAM child.
14. Planning and preparation of diets of in-patient admissions of severe acute malnutrition in children
15. Case study of children suffering from SAM and/or anaemia.
16. Design a research to study prevalence of major nutritional problems among pre-school children.
17. Design a research to study prevalence of major nutritional problems among adolescent girls.

References:

1. Vir SC. Public Health Nutrition in Developing Countries Pt 1 and 2 . Published by Wood head publishing India PVT LTD, New Delhi. Cambridge, Oxford, Philadelphia.
2. Sehgal S and Raghuvanshi Rita S Textbook of Community Nutrition, Indian Council of Agricultural Research, Published by: Directorate of Information and Publication of Agriculture, Indian Council of Agriculture Reserach, KrishiAnusandhanBhavan, Pusa, New Delhi-110012
3. Bami MS, Rao PN and Reddy V. Textbook of Human Nutrition, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.1996.
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5. Waterlow JC. Protein Energy Malnutrition, Edward Arnold, A division of Hodder and Stoughton, 1992.
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- Department of Pediatrics, Maulana Azad Medical College, New Delhi, 1994.
7. McLaren DS. A colored Atlas and Textbook of Diet-Related Disorders, 1992.
 8. Passmore R and Eastwood MR. Human Nutrition and Dietetics, ELBS, Churchill Livingstone, London, Baltimore, 1986.
 9. De Mayer EM. Preventing and Controlling iron deficiency anaemia through Primary Health Care, WHO, 1989.
 10. Jelliffe DS. The Assessment of Nutritional status of the community, WHO Geneva, 1966.
 11. Gopaldas T and Sheshadri S. Nutritional Monitoring and Assessment, Oxford University Press, New Delhi, 1987.
 12. Shukla PK. Nutritional problems of India, Prentice Hall of India Private Limited, New Delhi, 1982.
 13. Shills ME, Young VR and Bombay KN. Modern Nutrition in Health and Disease, Varghese Company, VII Edition, 1988.
 14. Beaton GH and Bengoa JM. Nutrition in preventive Medicine. The major deficiency syndrome Epidemiology and approaches to control, World Health Organization, Geneva, 1976.
 15. Talwar GP. Textbook of Biochemistry and Human Biology, Prentice Hall of India Pvt. Ltd., New Delhi, 1980.

STATISTICS (THEORY)

Paper code: FHN B01

Credits : 4

Max. Marks:100

Teaching Hours :4 Hours/Week

Total Teaching Workload :60 Hours/Semester

Objectives:

1. To understand the basic concepts of statistics.
2. To enable the students to understand various types of statistical tools and their interpretation

Contents:

UNIT –I

1. Statics: meaning and scope and importance in research
2. Classification and tabulation.
3. Measures of central tendency and dispersion (Mean Median, Mode, Quartiles, Range and Standard Deviation).
4. Graphic and diagrammatic representation of data (Frequency, Histogram, Graphs, Bar-diagram and Pie charts).

UNIT –II

5. Elementary ideas on probability (Simple Probability) skewness and kurtosis definition. Elementary ideas of random variable and its density function (Binomial, Poisson, Uniform, Normal varieties, Normal distribution and its properties, Use of Normal probability tables).
6. Elements of testing a statistical hypothesis- formulation of the problem, Definition of type I and II errors. Level of Significance, t-test, Z-test.

UNIT –III

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7.	Design of Experiment: Analysis of Variance
8.	Correlation and Regression: Correlation and its interpretation. Product moment and Rank order. Correlation Coefficient Regression Equations (without derivation) and its interpretations, use of prediction.
9.	Non-parametric Inference: Sign, Mann Whitney and Chi square test (as goodness of fit and independence of attributes in 2*2 and r*c contingency tables).
10.	Use of computer for statistical analysis using SPSS.

References:

1. Simpson G, Kafka F. Basic statistics: a textbook for the first course, Oxford and IBH Publishers, New Delhi, 1977.
2. Taro Y. Sampling Theory. Prentice-Hall Publishers, New Delhi, 1967.
3. Snedecor and Cochran. Statistics Methods, Oxford and I.B.H. Publishers, Calcutta, 1968.
4. Gupta SP. Statistics Methods, Sultan Chand and Co., New Delhi, 2008.
5. Good CV and Carter DE. Methods of Research-Educational Psychological Application, Century Craft, New York 1954.
6. Kerlinger FA. Foundation of Behavioural Research, Century Craft, New York, 1966.
7. Devdas RP and Kulandaivel. Handbook of Research Methodology, Sri Ram Krishna mission Vidhyalaya, 1971.
8. Good CV and Carter DE. Methods of Research- Educational, Psychological, Sociological Application, Century Craft, New York, 1954.

FOOD PROCESSING (THEORY)

Paper Code : FHN B02

Credits: 4

Max. Marks:100

Teaching Hours :4 Hours/Weeks

Total Teaching Workload :60 Hours/Semester

Objectives :

1. To impart systematic knowledge of basic and applied aspects in food processing and technology
2. To enable the students to understand food composition and its physico- chemical, nutritional and sensory aspects.
3. To gain in depth knowledge about processing and preservation techniques of cereals, pulses, oilseeds, meat and their products
4. To optimise process parameter for consistent quality processed food products

Contents:

UNIT-I

1. Brief introduction of Cereals and legumes
2. Milling process: Complete milling process, types of milling processes: break rolls, reduction rolls, milled products and their nutritive values and applications.
Baking technology: bread, biscuits /cookies and cake, principles of baking, Ingredients and their functions, methods of preparation, in process control, faults, causes and remedies, methods of leavening: physical, biological and chemical, scoring of quality parameters.

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3. Breakfast cereals: wheat, oat, rice and corn.
4. Legume technology: general composition and processing : decortications, germination, Fermentation, agglomeration and effect of cooking.
5. Soyabean: defatted flour, milk and isolated protein

UNIT- II

7. Dairy and Flesh Food Technology
8. Milk: composition, factors affecting milk quality, physical and chemical properties and its processing: clarification, Separation, centrifugal process, natural creaming, pasteurization, sterilization, homogenization, effect of processing on nutritive value.
Milk Products: milk powder, Khoa, Cottage cheese, butter, butter oil, margarine, cheese, ice cream-commercial processing, BIS Standards, Packaging and distribution.
9. Meat: slaughtering and related practices, pre slaughter handling, grading, ageing, curing, smoking and tenderizing of meat, meat pigments and color changes, cooking, storage, methods of preservation for value addition and spoilage. Sausages and table ready meat products.
10. Poultry: Production consideration, processing plant operation (slaughter and bleeding, scalding, de-feathering, eviscerating, chilling and packaging), cooking, tenderness, flavor and color changes.
11. Eggs: Structure, quality factors, storage, bacterial infection and pasteurization, freezing, drying and egg substitutes.
12. Fish: Types of fishes, onboard handling and preservation, drying and dehydration, salt curing, smoking, marinades, fermented products, canning, Modified Atmosphere Packaging and quality factors.
13. Oilseeds, Fruits and Vegetable technology
14. Production and processing methods of fats and oils, hydrogenation
Fat and oil Products: Margarine shortenings and frying oils, Mayonnaise and salad dressings, fat substitutes.
15. Ripening of fruits and Food spoilage
16. Principles of fruits and vegetables preservation. Processing technologies: Freezing, dehydration/drying, blanching, canning, preserves: jam, jelly, marmalade, pickle, sauce, squash, syrup, chutney.
17. Processing and preservation for small scale industry with special reference of FPO 1955.

References:

1. Herausgegeben VG, Fabriani C, Lintas S and Zahlr AT. Durum Wheat: Chemistry and Technology, American Association of Cereal Chemists, Inc., St. Paul, Minnesota, USA, Vol 32, Issue 2, 1989.
2. Kent NL. Technology of Cereals. Pergamon Press, IV ed. Oxford, United Kingdom, , 1993.
3. Stadelman WJ, Olson VM. Shemwell GA and Pasch A. Egg and Poultry -Meat Processing, I ed. VCH Publication, New York, , 1998.
4. Winton KB and Winton AI. Techniques of Food Analysis. IV ed. Agrobios, Jodhpur, Rajasthan, 2006.
5. Samuel MA. Bakery Technology and Engineering. III ed., Pan-Tech International publishers., 1999.
6. Pomeranz Y and Meloan CE. Food Analysis: Theory and Practice. III ed., Springer Publishers, New York, , 2002.



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7. Potter NN and Hotchkiss JH. Food Science. V ed.CBS Publishers and distributors, New Delhi, 2007.
8. Siddapa GS. Preservation of Fruits and Vegetables, ICAR Publication, New Delhi, 1986.
9. Van LoeseckeHW. Outlines of Food Technology. VI ed.,Agrobios, Jodhpur, Rajasthan, ,2002.
10. Salikhe DK, Kadam SS. Handbook of Fruit Science and Technology. V ed., Production Composition, Storage and Processing. Marcel Decker Inc, New York, 1995.
11. Subbulakshmi G and Udipi SA. Food Processing and Preservation. I ed., New age International Publishers, New Delhi, 2001.
12. Marriott NG, Gravani RB. Principles of Food Sanitation. V ed., Springer Publication, New York, 2006.
13. Kumar DS. Outlines of Dairy: Technology. I ed., Oxford University Press, USA, 2001

NUTRITIONAL BIOCHEMISTRY – II (PRACTICAL)

Paper Code : FHN B11

Credits: 4-

Max. Marks : 100

Teaching Hours : 2 Practicals / Week(3 Hours/Practical)

Total Teaching Load : 30 Practicals /Semester

Objectives:

1. To demonstrate the need for careful planning and organization of laboratory work and skilful execution of practical/experiments.
2. To develop an understanding of the principles of various biochemical techniques.
3. To develop competence in biochemical estimations.
4. To apply the knowledge acquired from the biochemical estimation to human nutrition.

Contents:

- | | |
|----|---|
| 1. | Titrimetric estimation: Determination of calcium in milk powder , CaCO ₃ solution. |
| 2. | Colorimetric estimation (in unknown solution) <ul style="list-style-type: none"> • Determination of Iron in Ferrous Ammonium sulphate solution and in blood. • Determination of Haemoglobin in blood by colorimetric method. • Determination of phosphorus in milk and phosphorus solution by F.S. colorimetric method. • Determination of protein by Lowry/ Biuret method. |
| 3. | Enzymes assays <ul style="list-style-type: none"> • Determination of Alkaline phosphatase Enzyme. • Determination of Transaminase enzyme (GOT and GPT) |
| 4. | Paper Chromatographic separation of Amino Acids by <ul style="list-style-type: none"> • Circular method • Ascending and • Descending methods |

FOOD MICROBIOLOGY (PRACTICAL)

Paper code: FHN B12

Credits : 4

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Max. Mark :100

Teaching Hours : 2 Practicals/Week (3Hours/Practical)

Total Teaching Workload: 30 Practicals/Semester

Objectives :

1. To understand the functioning of a microscope.
2. To understand the technique of culturing and staining strategies.
3. To learn about the microbiology of foods.

Contents :

1. Principles, use and maintenance of microscope.
2. Functioning and use of various microbiology laboratory equipments.
3.
 - i)Preparation of Culture media :
 - Preparation of General Purpose Media
 - Preparation of Selective and Differential Medium
 - ii)Techniques of Culturing :
 - Sub-culturing of a given culture
 - iii)Pure Culture Techniques :
 - Isolation of Pure Culture of Bacteria by Streak Plate Method
4. Quantitative Techniques :
 - Estimation of Amount of Bacteria by Pour Plate Method
 - Quantitative Determination of Viable Microbes
5. Colony characteristics and staining techniques :
 - Preparation of culture media in the Laboratory and streaking
 - Observation of colony characteristics.
6. Staining Strategies in the Laboratory :
 - Preparation of bacterial smear
 - Simple Staining of Bacterial Culture
 - Gram Staining of Bacterial Culture
 - Negative staining of the given culture(s)
7. Microbiological Study of Water :
 - Testing Quality of water using presumptive test
 - Confirmation of the Presence of Coliform Bacteria in Positive Presumptive Test
 - Performing the Complete Coliform Test
8. Microbiological Analysis of Milk Sample :

9.	<ul style="list-style-type: none"> • Determination of the Quality of Milk sample by Methylene Blue Reduction Test <p>Microbiological Analysis of Food Samples: ice cream, butter, cheese, curd, fruits, juices etc:</p> <ul style="list-style-type: none"> • Observation and Recording for these Exercises
10.	<p>Sampling and Analysis of Microbial Load on Food Contact Surfaces :</p> <ul style="list-style-type: none"> • Assessing Sanitary Quality of Contact Surface by Swabbing Method • Analysis of Air of Processing Facility for Microbial Load
11.	Preparation of fermented foods –Sauerkrat and soya sauce
12.	Field visit to concerned food plants to food safety and HACCP practices.
13.	Field visit to any two food vendors to assess the food safety norms being followed.

FOOD PROCESSING (PRACTICAL)

Paper Code: FHN B13

Credits: 2

Max. Marks: 100

Teaching Hours : 1 Practical/Week (3 Hours/Practical)

Total Teaching Load: 15 Practicals/Semester

Objectives :

1. To understand the raw materials analysis and their processing technology used in different products development.
2. To understand the processing technologies of different products and concept of product optimization
3. To impart systematic knowledge of basic and applied aspects in food processing and technology
4. To enable the student to understand food composition and its physico chemical, nutritional and sensory aspects.
5. To gain indepth knowledge about processing and preservation techniques of milk products technology and fruits and vegetables technology.

Contents:

1. Cereal and Cereal Products Technology
 - (A) Bread baking
 - a) Quality testing of different flour:
 - Gluten quality and quantity
 - Moisture and ash percent
 - Water Absorption Power (WAP)
 - Pekar color test
 - Maltose value
 - Falling Number
 - Dough Raising Capacity

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	<p>b) Bread Processing: process optimization of</p> <ul style="list-style-type: none"> • Straight dough method • Sponge and dough method (delayed salt method) • Potassium bromate response of different flours • Optimization of brown bread process • Preparation of sweet buns • Preparation of pizza base <p>(B) Biscuits and cakes</p> <ul style="list-style-type: none"> • Preparation of short and hard dough biscuits and packaging and shelf life studies for 5 weeks • Preparation of sponge and cream cakes packaging and shelf life studies for 5 weeks
2.	Visit to milk processing industry
3.	<p>Milk and milk products technology</p> <ul style="list-style-type: none"> • Chemical analysis of milk and determination of its components like fat, SNF, protein, TSS • Detection of preservatives in milk (boric acid and borate) • Detection of adulterants in milk and analysis of cheese, paneer, khoa as per BIS standards • Tests to judge the efficiency of pasteurization and homogenization
4.	<p>Fruits and Vegetable Technology</p> <ul style="list-style-type: none"> • Analysis of Proximate principles: Carbohydrate, sugars, ash, moisture, fat and protein. • Experiment on control of enzyme activity, enzyme inactivation in fruits and vegetables • Preservation of fruits and vegetables using heat, salt and sugar and estimation of effect of processing on nutrients and color: • Processing of tomato products • Processing of jams, jellies and marmalades • Processing of pickles and brines • Estimation of acidity, total solids of different foods - Squashes, syrups and juice. • Dehydration of fruits, and vegetables and shelf life studies: its effect on color, texture and flavor. Rehydration ratio, rehydration coefficient • Preservation of fruits and vegetables using low temperature
5.	<p>Fat and oil technology</p> <ul style="list-style-type: none"> • Fat absorbance, • Degree of unsaturation • Peroxide value • Acid value • Saponification value

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Third Semester Exam December 2017

S. No.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			EoSE Duration (Hrs)	
					L	T	P	Thy	P
1.	FHN 901	Clinical Nutrition and Dietetics- I	CCC	4	4	0	0	3	0
2.	FHN 902	Public Health Nutrition - I	CCC	4	4	0	0	3	0
3.	FHN 903	Institutional Food Administration - I	CCC	4	4	0	0	3	0
4.	FHN 911	Public Health Nutrition - I	CCC	6	0	0	9	0	6
5.	FHN C01	Food and Nutrition Security	ECC	4	4	0	0	3	0
6.	FHN C02	Skill Development in Clinical Nutrition	ECC	2	2	0	0	3	0
7.	FHN C11	Clinical Nutrition and Dietetics- I	ECC	4	0	0	6	0	6
8.	FHN C12	Institutional Food Administration - I	ECC	4	0	0	6	0	6
9.	FHN C13	Skill Development in Clinical Nutrition	ECC	4	0	0	6	0	4
				36					

CCC = 18,
ECC = 18
Total = 36 credits

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THIRD SEMESTER

CLINICAL NUTRITION AND DIETETICS – I (THEORY)

Paper code: FHN 901

Credits : 4

Max. Marks:100

Teaching Hours :4 Hours/Week

Total Teaching Workload : 60 Hours/Semester

Objectives:

- To enable the students to understand about body composition and its application in nutrition and health.
- Identification of high risk patients, malnutrition in hospital patients.
- To enable the students to understand the special nutrition concerns and the dietary management of various diseases.
- To give practical insight for assessment, nutritional care and counseling to patients.

Contents:

UNIT- I

1. Body Composition

- Body composition and cellular basis of growth
- Significance and methods used for measurement of body composition in nutrition.
- Application of body composition in nutrition and health.
- Cellular Growth and development during life cycle

2.

Pathophysiology, aetiology, clinical features, prevention and dietary management of Obesity and Eating disorders

- Obesity
- Anorexia Nervosa
- Bulimia Nervosa

3.

Geriatric Nutrition

- Ageing process,
- Cellular basis of Ageing
- Nutritional and Medical problems of elderly
- Nutritional care and lifestyle modifications in elderly persons
- Management of Common ailments related to ageing

UNIT- II

4.

Nutrition Care Process in Hospitalized Patients

- Nutrition care process
- Interpretation of routine medical and laboratory data

5.

Methods of Feeding:

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	Enteral and Parenteral feeding
6.	Nutritional care of hospitalized children <ul style="list-style-type: none"> • Nutritional care of neonates • Nutrient modifications and special feeding problems • Nutritional care of Malnourished children
7.	Food Allergies Clinical features, diagnosis and management of Food Allergy and food intolerance.
8.	Immunity and Nutrition
9.	Effect of Stress on Health and Nutrition

UNIT- III

10.	Classification, Aetiology, Clinical features , diagnosis, prevention and dietary management of Gastrointestinal Diseases <ul style="list-style-type: none"> • GERD, • Peptic Ulcer, • Constipation, • Diarrhoea, • Celiac Disease, • Irritable Bowel Disease, • Ulcerative Colitis
11.	Classification, Aetiology, Clinical features , diagnosis, prevention and dietary management of Liver and Pancreatic Diseases <ul style="list-style-type: none"> • Hepatitis, • Liver Cirrhosis - ALD & NALD • Fatty liver • Hepatic Coma • Pancreatitis

References :

1. Mahan LK and Escott-Stump S. Krause's Food, Nutrition & Diet Therapy .WB Saunders Company, Pennsylvania, USA, 2004.
2. Bamji MS, Rao NP, Reddy VE. Text Book of Human nutrition Second Edition.Oxford & IBH Publishing Co. Pvt. Ltd, 2003.
3. Wardlaw GM and Kessel MW. Perspectives in Nutrition. Fifth Edition. Mc Graw Hill Publications, Ohio, USA, 2007.
4. Joshi YK. Basics of Clinical Nutrition. II Edition. Jaypee Brothers medical Publishers (P) Ltd. New Delhi. 2008.
5. Shils ME, Olson JA, Shike N and Roos. Modern Nutrition in Health and Disease, 8th Edition, Lea and Febiger, Philadelphia , 1994.
6. Williams SR. Essentials of Nutrition and Diet Therapy. Times Mirror/Mosby College Publishing. 1990.
7. Carol WS and Merrily FC. Nutrition: Principles and Application in Health Promotion,

Published by J. B. Lippincott, 1984.

Journals

1. Indian Journal of Nutrition and Dietetics
2. American Journal of Nutrition
3. World Review of Nutrition and Dietetics

PUBLIC HEALTH NUTRITION - 1 (THEORY)

Paper Code: FHN 902

Credits: 4

Max. Marks:100

Teaching Hours :4 Hours /Week

Total Teaching Workload : 60 Hours /Semester

Objectives:

1. Gain insight into national nutritional problem, and national & international contribution towards nutrition improvement in India.
2. Development of skills in organizing and evaluating nutrition projects in the community.
3. To be familiar with various approaches to public health nutrition programs and policies.

Contents :

UNIT- I

Public Nutrition and Health Care System

1. Concept and scope of public health nutrition
 2. Levels of Health care and Health care system in India
 3. National Policy: Health, nutrition and population
 4. Brief note on : Dual burden of malnutrition, National Health Mission, Millennium Development Goals
- Nutritional Epidemiology**
5. Definition, aims, basic measurement and applications
- Study designs - methods applied in conducting nutrition research
Measuring exposure (diet) outcome (diseases) relationship and their interpretation

UNIT- II

6. **Assessing and Intervening the Community's Nutritional Needs**
 - Community Need Assessment
 - Reaching out to High Risk population
7. **Promoting the Public's Nutritional Health**
 - Growing a Healthier Nation: Maternal, Infant, Child and Adolescent Nutrition
 - Importance of Public Health Nutrition Programs in Preventing Disease and Promoting Health
 - Providing Services in Public Health Primary care

UNIT- III

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	Public Health Aspects of under nutrition
8.	Etiology, Public Health Implications, preventive/curative strategies for: <ul style="list-style-type: none"> - Chronic energy deficiency - Protein energy malnutrition - Micronutrient deficiency
9.	Approaches/strategies for improving nutrition and health status of community: <ul style="list-style-type: none"> • Health based interventions including immunization, provision of safe drinking water, hygiene, prevention and management of diarrheal diseases. • Food based interventions including food fortification, dietary diversification, supplementary feeding and biotechnological approaches.
10.	Education based interventions including growth monitoring and promotion, and nutrition health education

References:

1. Vir SC. Public Health Nutrition in Developing Countries Pt 1 and 2 . Published by Wood head publishing India PVT LTD, New Delhi. Cambridge, Oxford, Philadelphia, 2010.
2. Sehgal S and Raghuvanshi Rita S. Textbook of Community Nutrition, Indian Council of Agricultural Research, Published by: Directorate of Information and Publication of Agriculture, Indian Council of Agriculture Research, Krishi Anusandhan Bhavan, Pusa, New Delhi, 2011.
3. Bamji MS, Rao PN and Reddy V. Textbook of Human Nutrition, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi, 1996.
4. Sari Edelstein (Editor). Nutrition in Public Health: A handbook for developing Programs and Services. Jones Bartlett Learning, 3rd Edition, 2011.
5. Waterlow JC. Protein Energy Malnutrition, Edward Arnold, A division of Hodder and Stoughton, 1992.
6. Sachdeva HPS and Chaudhary P (Eds). Nutrition in Children: Developing country concerns, Department of Pediatrics, Maulana Azad Medical College, New Delhi, 1994.
7. Mc Laren DS. A colored Atlas and Textbook of Diet-Related Disorders, 1992.
8. Passmore R and Eastwood MR. Human Nutrition and Dietetics, ELBS, Churchill Livingstone, London, Baltimore, 1986.
9. De Maeyer EM. Preventing and Controlling iron deficiency anemia through Primary Health Care, WHO, 1989.
10. Jelliffe DS. The Assessment of Nutritional status of the community, WHO Geneva, 1966.
11. Gopaldas T and Sheshadry S. Nutritional Monitoring and Assessment, Oxford University Press, New Delhi, 1987.
12. Shukla PK. Nutritional problems of India, Prentice Hall of India Private Limited, New Delhi, 1982.
13. Beaton GH and Bengoa JM. Nutrition in preventive Medicine. The major deficiency syndrome Epidemiology and approaches to control, World Health Organization, Geneva, 1986.

INSTITUTIONAL FOOD ADMINISTRATION – I (THEORY)

Paper Code : FHN 903

Credits: 4.

Max. Marks : 100

Teaching Hours : 4 Hours / Week

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Total Teaching Workload : 60 Hours/ Semester

Objectives :

1. The various aspects of food service planning
2. The management of food service organisations.
3. Developing in students the skill of menu planning for quantity and quality food preparation.

Contents :

UNIT- I

1. Introduction to Foodservice systems

- Development of food services in Institutions.
- Consumer behaviour and eating trends- teenagers, family, business- corporate world.
- Food services facility planning – introduction to foodservice facilities planning, the planning process, the planning team, planning the prospectus, functional planning, planning the atmosphere, workplace design, equipment requirements (writing equipment specifications, purchasing, factors affecting equipment selection, type of equipments), space requirements, layout of facilities.

UNIT- II

2. Organisation and Management

- Organization – definitions, nature and characteristics of organisation, theories of organisation, steps in process of organisation, principles of organisation, departmentation, types of organisations.
- Systems approach to management, management by objectives
- Management – definitions, management process, roles of a manager, level and skills of management, principles of management, tools of management, management of resources, functions of management.
- Financial Management – Key accounting concepts, basic financial statements, tools for comparison and analysis, budgeting, book keeping- principles of double entry, records.
- Energy management-energy utilisation, energy conservation, energy management systems
- Time management.

UNIT- III

3. Food Management

- Food acceptability and sensory evaluation – definition, application, difference between organoleptic and sensory evaluation, qualification and types of panelists, testing area, methods of sensory testing.
- Menu planning – importance of menu planning in food service organisation, types of menu and their application, factors affecting menu planning, steps in menu planning, quality food standards, standardised recipes.
- Food Purchasing – Market and the buyer, forecasting in foodservice, methods of purchasing, mode of purchasing (centralized and group purchasing), purchasing process and records, vendor selection and evaluation, Food selection.
- Food production – Food production planning, production schedules, principles of food production, methods of food production, production controls, quantity and quality control.
- Receiving and store room management - Elements of receiving, receiving process, dry storage, and low temperature storage.

- Food cost control – factors affecting food cost, records for control, pricing the products.
- Food Laws and standards

References:

1. Massie JL. Essentials of Management, Prentice Hall of India Private Limited, New Delhi, 1992.
2. Phillip TE. Modern Cookery for Teaching and the Trade, Orient Longman Ltd, Bombay, 1965.
3. Negi J. Food and Beverage Management and Cost Control. Kanishka Publishers and Distributors, New Delhi, 1999.
4. Negi J. and Manohar G. Food and Beverage Costing, Himalaya Publishing, Bombay, 2001.
5. Sudan AS. Foods and Beverage Management, Anmol Publications Pvt. Ltd., New Delhi, 2002.
6. Avery AC. A Modern Guide to Food Service Equipment, CBI Publishing Co. Boston, 1985.
7. Dewan JM. Catering and Food Service Management, Commonwealth Publishers, New Delhi, 1997.
8. Spears MC and Vaden AG. Food Service Organizations – A Managerial and Systems Approach, MacMillan Publishing Company, New York, 1985.
9. West BB, Wood L, Shughart GS and Harger VF. Food Service Institutions, V ed., John Willy Sons, New York 1977.
10. Malhan S and Sethi M. Catering Management: An integrated Approach, Wiley Eastern Limited, New Delhi, 1989.
11. Kotshevar LN and Terrell ME. Food Service Planning, Layout and Equipment, John Wiley and Sons Inc., USA, 1961.
12. Kinton R, Ceserani V, Foskett D. The Theory of Catering, ELST, London, 1999.
13. Palacio JP, Theis M. Introduction to Food Service. Pearson Prentice Hall, New Jersey, 2009.

PUBLIC HEALTH NUTRITION - I (PRACTICAL)

Paper Code: FHN 911

Credits : 6

Max. Marks:100

Teaching Hours : 3 Practicals/Week (3 Hours/Practical)

Total Teaching Workload : 45 Practicals/ semester

Objectives:

1. To enable students to assess needs of the community
2. To enable students to strategize programs on health and nutrition with available resources
3. To enable students to develop effective audio visual aids for community
4. To enable students to plan and develop low cost recipes with specific nutritional need.

Contents :

1	Participatory Rapid Assessment (PRA) Techniques
2	Strategies for reaching community for public health and nutritional development.
3	Communication: Channels, barriers
4	Methods of communication
5	Audio visual aids
6	Planning and preparation of pre mixes for complementary feeding to children 6-9,9-12 and 12-24 months.
7	Planning and preparation of fresh complementary foods for children 6-9, 9-12 and 12-24 months.

8	Planning and preparation of energy, protein, iron and calcium rich food for pregnant woman.
9	Planning and preparation of energy, protein, vitamin A and calcium rich food preparations for lactating woman.
10	Planning and preparation of food baskets for pregnant and lactating woman.
11	Preparation of energy and protein rich snack for severely malnourished children
12	Preparation of recipe based on pre-mix provided at AWC
13	Community Analysis for identification of needs related to public health and nutrition issues of community using PRA techniques
14	Assessment of causes of problems identified in above exercise and Prioritization of focus areas
15	Collection, analysis and presentation of literature on contemporary Public Health and Nutrition
16	Preparing messages which needs to be disseminated on contemporary issues of Public health and nutritional issues
17	Preparation of audio visual aids on any one public health and nutrition issues

FOOD AND NUTRITION SECURITY (THEORY)

Paper Code : FHN C01

Credits: 4

Max. Marks : 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours/ Semester

Objectives :

1. To understand the concept of Food and Nutrition Security.
2. To gain knowledge regarding policies and programmes for improving Food Security.

Contents :

UNIT- I

Public Health Aspects of under nutrition

1. **Food and Nutrition Security**
 - Definitions of Food and Nutrition Security.
 - Basic concepts and conceptual frame work of Food and Nutrition Security.
2. **Analysis of food security**
 - Food availability
 - Food access
 - Food absorption
3. **Beneficiaries for National Programs**
 - Infants
 - School Children
 - Adolescent Girls
 - Pregnant and Lactating Women

UNIT- II

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4.	Policies and Programmes for reducing insecurity (Social Protection Initiatives) <ul style="list-style-type: none"> • The Public Distribution System (PDS) and the Targeted Public Distribution System (TPDS) • Antyodaya Anna Yojana (AAY) • National Food for Work Programme (NFFWP). Mahatma Gandhi National Rural Employment Guarantee Act (NREGA) • The right to Food Act
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UNIT- III

5.	Agriculture initiatives to improve food security <ul style="list-style-type: none"> • The National Food Security Mission (NFSM) • National Horticulture Mission • Rashtriya Krishi Vikas Yojana Conditional cash transfer program
6.	Programs/Assistance targeted toward specific needy section of the population. <ul style="list-style-type: none"> • National Social Assistance Programme • Annapurna Scheme • Village Grain Bank Scheme • National Programme for Adolescent Girls • National programme of Nutritional support to Primary Education (Mid day meal programme)
7	Integrated child development services (Scheme)

References :

1. Understanding the dynamics of Food Insecurity and Vulnerability in Himachal Pradesh, India. ESA Working Paper No 07-22. FAO, May 2007.
2. Food Security and Nutrition. Cambodian Food Security and Nutrition website. <http://www.foodsecurity.gov.kh/CamSituation.aspx>
3. Food Security, Policy Brief. Issue 2, FAO, June 2006.
4. The Food Insecurity Atlas of Rural India, Swaminathan Research Foundation (2001).
5. Understanding the Dynamics of Food Insecurity and Vulnerability in Orissa, India. ESA Working Paper No 07-28. FAO, October 2007 (22).
6. Climate Change, Water and Food Security. Technical Background Document From the Expert Consultation Held on 26 to 28 February 2008, FAO, Rome. <ftp://ftp.fao.org/docrep/fao/meeting/013/ai783e.pdf>. Accessed on 24-7-08.
7. Climate Change: Impact on Agriculture and Costs of Adaptation, International Food Policy Research Institute (IFPRI), 2009 (26).
8. FS Atlas of Rural Rajasthan WFP/ Institute of HD, 2010.
9. Report on the state of FS in Rural Rajasthan WFP/MS Swaminathan Research Foundation, 2010.
10. Report on the state of FS in Urban India WFP/MS Swaminathan Research Foundation, 2010.

SKILL DEVELOPMENT IN CLINICAL NUTRITION (THEORY)

Paper Code: FHN C02

Credits : 2

Max. Marks: 100

Teaching Hours: 2 Hours/Week

Total Teaching Workload: 30Hous/ Semester

75

Objectives:

1. Identification of high risk patients, malnutrition in hospital patients.
2. To enable the students to understand the special nutrition concerns and the dietary management of various diseases.
3. To give practical insight for assessment, nutritional care and counselling to patients.

UNIT - I

1. **Nutrition Care Process in Hospitalized Patients**
 - Nutrition care process
 - Nutritional Assessment of hospitalized patients
 - Methods of feeding (Enteral and Parenteral feeding)
 - Interpretation of routine medical and laboratory data
2. **Behaviour Change Communication**
 - Assessment of Problem in food behaviours
 - Stages of Change

UNIT- II

3. **Factors affecting Food Choices**
Social, cultural, religious, economic, emotional factors.
4. **Food Drug Interactions**
 - Effect of drugs on food and nutrition
 - Effect of food on drug therapy
5. **Food Allergies**
Clinical features, diagnosis and management of Food Allergy and food intolerance.

UNIT- III

6. **Alternative Therapies**
 - Alternative Therapies
 - Ayurveda, Siddha, Yunani and Homeopathy systems
7. **NABH Regulations in context with Dietitians**
8. **Traditional Diets**

References :

1. Mahan LK and Escott-Stump S. Krause's Food, Nutrition & Diet Therapy .WB Saunders Company, Pennsylvania, USA, 2004.
2. Bamji MS, Rao NP, Reddy VE. Text Book of Human nutrition II Edition. Oxford & IBH Publishing Co. Pvt. Ltd., 2003
3. Wardlaw GM and Kessel Margaret W. Perspectives in Nutrition. Fifth Edition. McGraw Hill Publications, Ohio, USA , 2007
4. Joshi YK. Basics of Clinical Nutrition. IInd Edition. Jaypee Brothers medical Publishers.)

(P) Ltd. New Delhi. 2008.

5. Shils ME, Olson JA, Shike N and Roos. Modern Nutrition in Health and Disease, 8th Edition, Lea and Febiger, Philadelphia, 1994.
6. Sue RW. Essentials of Nutrition and Diet Therapy. Times Mirror/Mosby College Publishing. 1990.
7. Carol WS and Merrily FC. Nutrition: Principles and Application in Health Promotion, Published by J. B. Lippincott, 1984.

Journals

1. Indian Journal of Nutrition and Dietetics
2. American Journal of Nutrition
3. World Review of Nutrition and Dietetics

CLINICAL NUTRITION AND DIETETICS- I (PRACTICAL)

Paper Code : FHN C11

Credits: 4

Max. Marks : 100

Teaching Hours: 2 Practicals/Week (3 Hours/Practical)

Total Teaching Workload : 30 Practicals /Semester

Objectives :

1. To make students understand the nutritional assessment of elderly and hospitalized patients
2. To make students understand the nutritional management of obesity and eating disorders
3. To make students understand the nutritional management of patients suffering from gastrointestinal diseases, ulcers, liver, pancreatic diseases and food allergies

Contents :

1. Planning and preparation of diet for elderly persons
2. Plan, calculate diets for Obese and Overweight Persons
3. Plan, calculate diets for persons with eating disorders (Anorexia and Bulimia)
4. Visit to ICU to see various methods of feeding
5. Planning and preparation of diet for tube feeding
6. Nutritional Assessment of hospitalized patients
7. Visit to Pediatric Hospital to study the feeding of sick children
8. Planning and preparation of diet for a sick child
9. Plan, calculate diets for persons with constipation and diarrhea
10. Plan, calculate diets for patients with GERD
11. Plan, calculate diets for gastric and duodenal ulcers
12. Planning and preparation of diet for Celiac Disease
13. Planning and preparation of diet for Irritable Bowel Disease,
14. Planning and preparation of diet for Malabsorption Syndrome
15. Planning and preparation of diet for Ulcerative Colitis
16. Planning and preparation of diet for Hepatitis
17. Planning and preparation of diet for Hepatic Coma

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18.	Planning and preparation of diet for Liver Cirrhosis
19.	Planning and preparation of diet for Pancreatitis
20	Planning nutrition support for fatty liver
21	Adaptation of traditional diets for healthy life style.
22	Plan, calculate diets for food intolerances and counsel them regarding management of food intolerance

INSTITUTIONAL FOOD ADMINISTRATION –I (PRACTICAL)

Paper Code : FHN C12

Credits: 4

Max. Marks :100

Teaching Hours : 2 Practicals / Week (3 Hours/Week)

Total teaching workload : 30 Practicals/Semester

Objectives :

1. To visit different food service institutions to gain an insight into the functioning of such units.
2. To plan menus for different occasions/institutions
3. To cook certain food items in large quantities ie., in 50-60 portions each.

Contents :

1.	Carrying out market survey of perishable, non-perishable and processed foods for meal planning.
2.	Planning and preparation of meals for various occasions giving general consideration, assumptions, organization chart, budget breakup, menu, cost calculations, comparison of actual and estimated costs and evaluation, for example: <ul style="list-style-type: none"> • Hostel mess • Railway canteen • Office canteen • College canteen • Mid day meal • Conference
3.	Visit to different institutes for eg: <ul style="list-style-type: none"> • Girls' hostel • Railway canteen • Office • College • Akshaya patra
4.	Quantity cookery classes for preparation of food items for eg: Coconut cookies, Samosas, Chole tikki, Masala idlies, Masoor dal pakories, Bhelpuri, Dahi wada, Chikki etc.

SKILL DEVELOPMENT IN CLINICAL NUTRITION (PRACTICAL)

Paper Code: FHN C13

Credits :4

Max. Marks: 100

Teaching Hours: 2 Practicals/ Week (3 Hours/Practical)

Total Teaching Workload: 30 Practicals/ Semester

Objectives:

1. To make students familiar with hospital environment
2. To make students understand the importance and method of nutritional assessment of hospitalized patients
3. To enable students to understand and get trained in management of hospital kitchens
4. To enable students to make appropriate recipe formulations and modifications in a hospital based kitchen
5. To enable students to develop an understanding of working in various wards and counseling patients having difficulty in feeding and catering to their needs

Contents:

1. Working of a Dietetics Department in a hospital.
Job profile of a Dietician, liaison with doctors and nursing staff.
2. Assessment of Nutritional Status of Hospitalized patients- in 4 wards on rotation
To understand the working of a Kitchen in a hospital. Inventory and management of kitchen.
3. Duties of a Dietician in menu planning.
4. Recipe modification and standardization in the lab
5. Conversion of requisitions and prescriptions to menus
6. Case Study
Case study in various wards like pediatric, critical care, surgery, gynecology, renal etc.
2 students will be posted in a ward for 5 days, and shall complete two case studies.
Case study to be submitted shall include anthropometric, biochemical data, clinical examination and dietary data of the patients.
7. Report writing and submission and presentation

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Fourth Semester June 2018

S. No.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			EoSE Duration (Hrs.)	
					L	T	P	Thy	P
1.	FHN X01	Clinical Nutrition and Dietetics-II	CCC	4	4	0	0	3	0
2.	FHN X02	Public Health Nutrition – II	CCC	4	4	0	0	3	0
3.	FHN X03	Institutional Food Administration - II	CCC	4	4	0	0	3	0
4	FHN X11	Clinical Nutrition and Dietetics-II	CCC	6	0	0	9	0	6
5	FHN D01	Nutrition Research Design	ECC	4	4	0	0	3	0
6	FHN D02	Skill Development in Public Health Nutrition	ECC	2	2	0	0	3	0
7	FHN D11	Public Health Nutrition – II	ECC	4	0	0	6	0	4
8	FHN D12	Institutional Food Administration - II	ECC	4	0	0	6	0	6
9	FHN D13	Skill Development in Public Health Nutrition	ECC	4	0	0	6	0	4
				36					

CCC = 18,

ECC = 18

Total = 36 credits

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FOURTH SEMESTER

CLINICAL NUTRITION AND DIETETICS- II (THEORY)

Paper Code : X01

Credits: 4

Max. Marks:100

Teaching Hours : 4 Hours/Week

Total Teaching Workload : 60 Hours /Semester

Objectives :

1. To impart knowledge about health, fitness and sports nutrition.
2. To impart advanced knowledge to students about pathophysiology of various diseases.
3. To enable the students to understand the special nutrition concerns and the dietary management of Cancer, AIDS, Surgery, Burns, Renal Disorders, Cardiovascular Diseases, Diabetes,
4. To give practical insight for assessment, nutritional care and counseling to patients.

Contents:

Unit -I

1. Nutrition in health and fitness
 - Interrelationship between health, nutrition, exercise and fitness
 - Energy input and output
 - Effect of specific nutrients on work performance and fitness
2. Sports nutrition
 - Energy sources during different exercises
 - Nutritional requirements of athletes
 - Water and electrolyte balance.

Unit- II

3. Nutrition in Renal Disorders:-
 - Glomerulonephritis
 - Nephrotic Syndrome
 - Acute Renal Failure
 - Chronic Renal Failure
4. Nutrition in Surgery and Burns
 - Pre and post operative nutritional care
 - Nutrition support in burns
5. Nutrition related problems and Support in Human Immuno Deficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS)

Unit -III

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6.	Pathophysiology, aetiology, clinical features prevention and dietary management of Cardiovascular Diseases: <ul style="list-style-type: none"> • Hypertension • Coronary Heart Disease
7.	Pathophysiology, aetiology, clinical features, prevention and dietary management of Diabetes mellitus <ul style="list-style-type: none"> • Type 1 Diabetes • Type 2 Diabetes
8.	Nutrition and Cancer <ul style="list-style-type: none"> • Role of nutrition in etiology of cancer • Nutritional effects of cancer and it's therapies • Nutritional care of cancer patients

References :

1. Mahan LK and Escott-Stump S. Krause's Food, Nutrition & Diet Therapy .WB Saunders Company, Pennsylvania, USA, 2004.
2. Bamji MS, Rao NP, Reddy VE. Text Book of Human nutrition II Edition.Oxford& IBH Publishing Co. Pvt. Ltd., 2003
3. Wardlaw GM and Kessel Margaret W. Perspectives in Nutrition. Fifth Edition. McGraw Hill Publications, Ohio, USA , 2007
4. Joshi YK. Basics of Clinical Nutrition.IInd Edition. Jaypee Brothers medical Publishers (P) Ltd. New Delhi. 2008.
5. Shils ME, Olson JA, Shike N and Roos. Modern Nutrition in Health and Disease, 8th Edition,Lea and Febiger, Philadelphia , 1994.
6. Sue RW. Essentials of Nutrition and Diet Therapy. Times Mirror/Mosby College Publishing. 1990.
7. Carol WSand Merrily FC. Nutrition: Principles and Application in Health Promotion, Published by J. B. Lippincott, 1984.

Journals

1. Indian Journal of Nutrition and Dietetics
2. American Journal of Nutrition
3. World Review of Nutrition and Dietetics

PUBLIC HEALTH NUTRITION – II(THEORY)

Paper code :FHN X02

Credits: 4

Max. Marks :100

Teaching Hours :4 Hours/Weeks

Total Teaching Workload :60 Hours/Semester

Objectives :

1. Gain insight into national nutritional problem, and national & international contribution towards nutrition improvement in India.

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2. Development of skills in organizing and evaluating nutrition projects in the community.
3. To be familiar with various approaches to public health nutrition programs and policies.

Contents :

UNIT- I

- | | |
|-----------|--|
| 1. | <p>Programme planning and management in public health nutrition
 Steps in programme planning / planning cycle
 Planning Models
 Program implementation
 Application of management methods and techniques in the health care delivery system</p> |
|-----------|--|

UNIT- II

- | | |
|-----------|---|
| 2. | <p>Programme Monitoring and Evaluation
 Definition, significance and purpose of monitoring nutrition programme
 Identification and selection of indicators for monitoring nutrition programmes
 Definition, significance and purpose of evaluation nutrition programmes
 Identification and selection of indicators for evaluation
 Management of Data</p> |
|-----------|---|

UNIT -III

- | | |
|-----------|---|
| 3. | <p>Nutrition Communication</p> <ul style="list-style-type: none"> • Definition and need for nutrition - health education • Concept and objectives of communication for behavior change • Designing nutrition - health education plan • Characteristics of commonly used nutrition and health education materials, including social marketing |
| 4. | <p>Nutrition Surveillance
 Objectives, Purposes and indications used in nutrition surveillance
 Agencies for nutrition surveillance in India</p> |
| 5. | <p>Marketing Nutrition Programs and Service</p> <ul style="list-style-type: none"> • Marketing Research • Business and Social Marketing • Evaluation • Marketing Ethics |

References :

1. Vir SC. Public Health Nutrition in Developing Countries Pt 1 and 2 . Published by Wood head publishing India PVT LTD, New Delhi. Cambridge, Oxford, Philadelphia, 2010.
2. Sehgal S and Raghuvanshi Rita S. Textbook of Community Nutrition, Indian Council of Agricultural Research, Published by: Directorate of Information and Publication of Agriculture, Indian Council of Agriculture Research, KrishiAnusandhanBhavan, Pusa, New Delhi, 2011.
3. Bamji MS, Rao PN and Reddy V. Textbook of Human Nutrition, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi, 1996.
4. Robinson CH and Lawler MR. Normal and Therapeutic Nutrition, Macmillon, NewYork, 1986.
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Stoughton, 1992.

6. Sachdeva HPS and Chaudhary P (Eds). Nutrition in Children: Developing country concerns, Department of Pediatrics, Maulana Azad Medical College, New Delhi, 1994.
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9. De Maeyer EM. Preventing and Controlling iron deficiency anemia through Primary Health Care, WHO, 1989.
10. Jelliffe DS. The Assessment of Nutritional status of the community, WHO Geneva, 1966.
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12. Shukla PK. Nutritional problems of India. Prentice Hall of India Private Limited, New Delhi, 1982.
13. Beaton GH and Bengoa JM. Nutrition in preventive Medicine. The major deficiency syndrome Epidemiology and approaches to control, World Health Organization, Geneva, 1986.
14. Edelstein S (Editor). Nutrition in Public Health: A handbook for developing Programs and Services. Jones Bartlett Learning, 3rd Edition, 2011.

INSTITUTIONAL FOOD ADMINISTRATION – II (THEORY)

Paper Code: FHN X03

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours / Week

Total Teaching Workload: 60 Hours/ Semester

Objectives :

1. The aspects of food service management.
2. The management of personnel in smooth running of an organisation.
3. How to maintain a food service facility as a sanitary, safe and secure place

Contents :

UNIT- I

- | | |
|----|---|
| 1. | Food service Management <ul style="list-style-type: none">• Food service systems- Conventional, Commissary, Ready Prepared and Assemble serve.• Delivery and service of food in different food service systems- Hospitals, Schools, Industries, Airlines.• Types of service- Self, Tray, Waiter, Portable Meals.• Dining room management- furnishings and equipment for dining rooms |
|----|---|

UNIT- II

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2.	<p>Personnel Management</p> <ul style="list-style-type: none"> • Functions of personnel manager • Leadership – qualities and responsibilities of a leader, styles and theories of leadership, motivation, theories of motivation, philosophies of human nature-theories • Human resource planning-human resource inventory, human resource forecasting, human resource development plans. • Employment process- recruitment, selection, orientation, training, development • Performance appraisal and MBO • Employee facilities and benefits • Labour Cost Control- factors affecting labour control, records for control. • Labour management relations- reasons why workers join unions, development of labour unions, structure of unions, union and contract negotiations • Personnel functions- kitchen, dining room • Labour Laws affecting foods service operations.
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UNIT -III

3.	<p>Plant and equipment management</p> <ul style="list-style-type: none"> • Maintenance of equipments and facilities- manual and mechanical warewashing, sanitary facilities and equipment, preventive maintenance, pest control • Sanitation – principles of food sanitation, sanitation of food, personnel, physical plant and equipment, controlling microbial quality of food, food service sanitation, development of quality assurance (sanitation) programme. • Safety – Accident prevention, fire prevention, 3 Es of safety, safety and health programme, HACCP, Food Safety and Standards Act of India. • Security- management of security system, main security risks.
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References :

1. Massie JL. Essentials of Management, Prentice Hall of India Private Limited, New Delhi, 1992.
2. Phillip TE. Modern Cookery for Teaching and the Trade, Orient Longman Ltd, Bombay, 1965.
3. Negi J. Food and Beverage Management and Cost Control. Kanishka Publishers and Distributors, New Delhi, 1999.
4. Negi J and Manohar G. Food and Beverage Costing, Himalaya Publishing, Bombay, 2001.
5. Sudan AS. Foods and Beverage Management, Anmol Publications Pvt. Ltd., New Delhi, 2002.
6. Avery AC. A Modern Guide to Food Service Equipment, CBI Publishing Co. Boston, 1985.
7. Dewan JM. Catering and Food Service Management, Commonwealth Publishers, New Delhi, 1997.
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11. Kotshevar LN. & Terrell ME. Food Service Planning, Layout and Equipment, John Wiley and Sons Inc., USA, 1961.
12. Kinton R, Ceserani V, David F. The Theory of Catering, ELST, London, 1999.
13. Palacio JP, Theis M. Introduction to Food Service. Pearson Prentice Hall, New Jersey, 2009.

CLINICAL NUTRITION AND DIETETICS- II(PRACTICAL)

Paper Code : FHN X11

Credits: 6

Max. Marks : 100

Teaching Hours: 3 Practicals /Week (3 Hours/Practical)

Total Teaching Workload : 45Practicals /Semester

Objectives :

1. To make students understand the nutritional assessment of hospitalized patients
2. To make students understand the nutritional management of patients suffering from gastrointestinal diseases , liver, pancreatic diseases and food allergies
3. To make students understand the nutritional management of sports persons.
4. To familiarize students with the actual working in the Dietetics department in hospitals.

Contents :

- | | |
|----|---|
| 1. | <ol style="list-style-type: none"> a. Make a list of Protein rich, calcium rich, iron rich, sodium rich and potassium rich foods, MUFA, PUFA, Omega-3 and Omega -6 b. Make a list of foods deficient in Protein, calcium, iron, sodium and potassium, MUFA, Saturated fats |
| 2. | <ol style="list-style-type: none"> c. Plan and Standardized recipes with the foods rich in Protein, calcium, iron, sodium and potassium, d. Plan and Standardized recipes with the foods deficient in Protein, calcium, iron, sodium and potassium e. Incorporate recipes rich in MUFA, PUFA, Omega-3 and Omega -6 |
| 3. | <p>Sports Nutrition</p> <ol style="list-style-type: none"> a. Planning and preparation of snacks and drink suitable for various sports activities. b. Planning and preparation of diets for endurance training c. Plan and calculate a pregame and a post game meal d. Market Survey of Sports drinks, powders, snacks and meals e. Evaluate the nutritional quality of the sport supplements |
| 4. | <p>Renal Diseases</p> <ol style="list-style-type: none"> f. Planning and preparation of diet for Glomerulonephritis g. Planning and preparation of diet for Nephrotic Syndrome h. Planning and preparation of diet for Chronic Renal Failure |
| 5. | <p>Cardiovascular and Hypertension</p> <ol style="list-style-type: none"> a. Planning and preparation of diet for Hypertension b. Planning and preparation of diet for Coronary Heart Disease |

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6.	<ul style="list-style-type: none"> c. Planning preventive nutrition for Hyperlipidemias d. Planning preventive nutrition for hypertension (DASH diet)
7.	<p>Diabetes mellitus</p> <ul style="list-style-type: none"> a. Planning and preparation of diet for Type 1 Diabetes b. Planning and preparation of diet for Type 2 Diabetes c. Planning preventive nutrition for diabetes <p>AIDS</p> <p>Dietary management for HIV AIDS patients.</p>
8.	<p>Cancer</p> <p>Plan for cancer patients.</p> <p>Diets and lifestyle for prevention of cancer</p>

NUTRITION RESEARCH DESIGN (THEORY)

Paper code: FHN D01

Credits: 4

Max. marks: 100

Teaching hours: 4 Hours/Week

Total teaching workload: 60 Hours/ Semester

Objectives:

1. To impart knowledge on research methods and designs.
2. To provide an insight into writing research proposal and thesis/dissertation.
3. To develop projects and have an understanding of ethical guidelines, plagiarism and Copy Right Act.

Contents:

UNIT – I

1.	<p>Research studies and methods</p> <ul style="list-style-type: none"> i) Epidemiological methods- <ul style="list-style-type: none"> • Observational: correlation study, case reports and case series, cross-sectional study, case control study, cohort study, ecological study • Experimental: community trials, clinical trials (individual), controlled trials and uncontrolled trials ii) Qualitative research methods- <ul style="list-style-type: none"> • ethnography/anthropological methods • observation • interviewing • group discussion • archival (i.e. newspapers) • visual data (i.e. photos images) • linguistic/ conservation analysis • content analysis
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<p>2.</p> <p>3.</p>	<ul style="list-style-type: none"> • biographies, oral history (normative). <p>iii) Quantitative research methods-</p> <ul style="list-style-type: none"> • experimental studies • non – experimental designs such as surveys, cross sectional and longitudinal studies. <p>iv) Mixed methods-</p> <ul style="list-style-type: none"> • Sequential • concurrent • transformative <p>Nutrition Research Designs in</p> <p>i) Observational studies</p> <ul style="list-style-type: none"> • Cohort study • Prospective study • Retrospective study • Case control study <p>ii) Experimental studies</p> <ul style="list-style-type: none"> • Interventional study • Clinical trials • Randomized control trials • Cluster randomized trails <p>iii) Survey research</p> <ul style="list-style-type: none"> • Cross sectional study • Longitudinal study <p>iv) Mixed methods study</p> <p>Design Process of Research</p> <p>i) Conceptualizing a study: hypothesis, objectives</p> <p>ii) Selecting research methods and design</p> <p>iii) Data management</p> <p>iv) Communication of research through presentations and writing</p>
<p>UNIT – II</p>	
<p>4.</p>	<p>Types of reports</p> <p>i) Thesis/ dissertation</p> <p>ii) Research papers/articles</p> <p>iii) Review papers: systematic review paper, meta-analysis review paper</p> <p>iv) Case studies</p> <p>v) Term papers</p> <p>vi) Synopsis/ research proposal</p> <p>vii) Project reports</p> <p>viii) Seminar reports</p> <p>ix) Popular articles</p>

<p>5.</p> <p>6.</p>	<p>x) Research abstracts</p> <p>xi) Research progress reports</p> <p>Writing Research Proposal for Thesis/ Dissertation</p> <p>i) Title page, table of contents, abbreviations, certificate</p> <p>ii) Introduction- introduction, rationale, objectives, hypothesis</p> <p>iii) Review- structure, citation of references</p> <p>iv) Methodology- structure, sample design, sample size and characteristics, sampling procedure, locale of the study, tools of data collection, methods and procedures, statistical analysis</p> <p>v) Bibliography- structure, methods of citation, different styles followed</p> <p>vi) Appendices, footnotes, other accessories</p> <p>Writing thesis / dissertation (additional chapters)</p> <p>i) Abstract</p> <p>ii) Results and discussion- structure, tables, figures and discussion</p> <p>iii) Summary and conclusions- structure, conclusions</p> <p>iv) Recommendations- relevant to research work</p>
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UNIT – III

<p>8.</p> <p>9.</p>	<p>Designing projects</p> <p>i) Project title</p> <p>ii) Introduction:</p> <ul style="list-style-type: none"> • origin of the research problem • interdisciplinary relevance • review of research and development in the subject – international status and national status • significance of the study • its potential contribution to knowledge in the field of social relevance or national importance <p>iii) Objectives</p> <p>iv) Methodology</p> <p>v) Year wise plan of work and targets to be achieved</p> <p>vi) Budget: recurring: salary, travel and field work, hiring services, contingency and non-recurring: equipments, building</p> <p>Funding for projects-</p> <p>National agencies</p> <p>i) University Grant Commission (UGC)</p> <p>ii) Department of Biotechnology (DBT)</p> <p>iii) Department of Science and Technology (DST)</p> <p>iv) Indian Council of Medical Research (ICMR)</p> <p>v) Ministry of Food Processing Industry (MFPI)</p> <p>vi) Indian National Science Academy (INSA)</p> <p>vii) Indian Council of Agricultural Research (ICAR)</p> <p>viii) Council of Scientific and Industrial Research (CSIR)</p>
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	ix) Indian Council of Social Science Research (ICSSR)
	International Agencies
	i) UN Agencies: UNICEF, USAID, UNFPA
	ii) International Funding of Science
	iii) Third World Academy of Sciences
	iv) Third World Network of Scientific Organization
10.	National ethical guidelines for biomedical and health research involving human participants
11.	Plagiarism
12.	Copy Right Act

References:

- 1) Richard AP. The little book of plagiarism. University of Sterling, UK. 2016.
- 2) Stern L. What every student should know about avoiding plagiarism. Pearson's WESSKA Series, 2007.
- 3) Creswell JW. Research design qualitative, quantitative and mixed methods approaches. 2nd edition, Sage Publications, New Delhi.
- 4) National ethical guidelines for biomedical and health research involving human participants. Indian Council of Medical Research, New Delhi, 2016.
- 5) Indian Copyright Act, 1957. <http://copyright.gov.in/documents/copyrightrules1957.pdf>.
- 6) A hand book of copyright law. Government of India, Ministry of Human Resource Development and Department of Secondary Education and Higher Education. <http://copyright.gov.in/documents/handbook.html>
- 7) Rahim A. Thesis Writing: Manual for all researchers. New Age International Pvt. Ltd., New Delhi.
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- 10) Ingle PO. Scientific and technical report writing. Nikhil Graphics, Akola, 2012.
- 11) Vir SC. Editor. Public health nutrition in developing countries. Part I. Woodhead Publishing India Pvt Ltd, New Delhi.
- 12) PHFI. Post graduate diploma in public health nutrition by distance learning 2014-15. Vol 3. Module 7: Nutrition Epidemiology. Public Health Foundation of India, New Delhi.

PUBLIC HEALTH NUTRITION - II (PRACTICAL)

Paper code: FHN D11

Credits : 4

Max. Marks:100

Teaching Hours :2 Practicals/Week(3 Hours/Practical)

Total Teaching Workload : 30 practicals/Semester

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Objectives:

1. To enable students to plan programs for nutritional problems of public health importance
2. To collect literature on aspects of public health and assess them for their content hence enabling students to develop IEC and material
3. To plan and evaluate ongoing programs of public health

Contents :

1. Program planning on Public Health and nutritional problems identified as priority area during need assessment.
2. Collection of literature related to problem
3. Prepare messages to be disseminated on identified PHN issue
4. Plan communication methods for execution of program
5. Prepare suitable audio visual aids as well as collect audio visual aids already available at various Government departments or NGO
6. Implementation and Evaluation of program in field(selected village or slum areas) (Execute five programs of five groups of students)
7. Writing one article on any one contemporary public health and nutrition issues for print media

INSTITUTIONAL FOOD ADMINISTRATION – II (PRACTICAL)**Paper Code: FHN D12****Credits:4****Max. Marks: 100****Teaching Hours: 2 Practicals / week (3 Hours/Practical)****Total Teaching Workload: 30 Practicals/Semester****Objectives :**

- To visit different food service institutions to gain an insight into the functioning of such units.
- To plan menus for different occasions/institutions
- To cook certain food items in large quantities i.e., in 50-60 portions each.

Contents :

1. Carrying out market survey of perishable, non-perishable and processed foods for meal planning.
2. Planning and preparation of meals for various occasions giving general consideration, assumptions, organization chart, budget breakup, menu, cost calculations, comparison of actual and estimated costs and evaluation:
 - Theme party
 - Special cuisine
 - Cocktail party

3.	<ul style="list-style-type: none"> • Hospital meal • Tea party after a lecture • International airlines • Country of your choice <p>Visit to different institutes for eg.</p> <ul style="list-style-type: none"> • Hotel • School • Institute of Hotel Management • McDonalds • Industrial canteen • Philanthropic institution
4.	<ul style="list-style-type: none"> • Airport <p>Quantity cookery classes for preparation of food items for eg.: Chaula dal kipakori, Bread rolls, Mini pizzas, Burgers, Mexican tacos, Idlisambhar, Pavbhaji, Cholebhaturas, Bhelpuri</p>

SKILL DEVELOPMENT IN PUBLIC HEALTH NUTRITION (PRACTICAL)

Paper code: FHN D13

Credits : 4

Max. Marks:100

Teaching Hours : 2 Practicals/ Week (3 Hours/Practical)

Total Teaching Workload : 30 Practicals /Semester

Objectives:

1. To enable students to carry out Community Programs at Urban, Rural and Slums
2. To develop skills and to translate skills into action at Community level
3. To strengthen skills of frontline workers in all programs
4. To create interest in Community and create awareness and motivation for lifestyle modification

Content:

Skills through trainings

1. Malnutrition treatment centre:

- Placement at MTC in Hospital
- Skill in calculating, preparation and feeding of therapeutic diets.

2. Infant and young child nutrition

- Placement at AWCs- Strengthening skill of ASHAs and AWW
- Techniques of initiation of breast feeding, and complementary feeding.
- Techniques in calculation of frequency and adequacy of complementary food. (frequency, adequacy, density, utilisation)

3. Home Based Care of Neonates and Children

- Counseling and Strengthening HBNC in frontline workers by Placement at AWC in rural set up
- Counseling and Strengthening in Growth Monitoring and Promotion of Growth Monitoring in frontline workers by Placement at AWC in rural set up

4. Application of nutritional components of ICDS program

- Activities for MCHN day: Celebrating MCHN Day at Slum/ Village
- Nutritional care of pregnant woman in terms of weight gain during pregnancy, calcium & iron-folic acid supplementation and consumption of iodized salt.
- Infant and young child nutrition in terms of early initiation of breast feeding, exclusive breast feeding, timely introduction of complementary feeding and nutrition of children aged 6 months to 2 years.

5. Holding health Camp for all Population groups in Community/ Campus

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(iii)

M.Sc. Home Science
DEVELOPMENT COMMUNICATION AND EXTENSION

First Semester Examination, 2016-December

Scheme of Examination:

1. Each theory paper EoSE shall carry 100 marks. The EoSE will be of 3 hours duration. Part 'A' of the theory paper shall contain 10 Short Answer Questions of 20 marks, based on knowledge, understanding and applications of the topics/texts covered in the syllabus. Each question will carry two marks for correct answer.
2. Part "B" of paper will consist of four questions as suggested below except in cases where a different scheme is specified in the syllabus.
 - First question will contain 6 parts out of which 4 to be answered carrying weightage of 5 marks each. Word limit for each answer will be 50-70 words.
 - There shall be 3 questions (with internal choice) of 20 marks each. The word limit for each answer will be 1000 words.
3. Each laboratory EoSE will be of four/six hours duration and involve laboratory experiments/exercises, and viva-voce examination with weight-age in ratio of 75:25.

Course Structure:

The details of the courses with code, title and the credits assigned are as given below.

Abbreviations used:

Subject Code: DCE

Course category:

CCC: Compulsory Core Course

ECC: Elective Core Course

SSECC: Self Study Elective Core Course

SSCCC: Self Study Compulsory Core Course

DIS: Dissertation

Contact hours

L: Lecture

T: Tutorial

P: Practical

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Learning Outcomes of M.Sc. Development Communication and Extension (DCE)

The M.Sc programme in Development Communication and Extension will make the students understand various issues and challenges of development in general and for rural India in particular. The students would gain knowledge regarding socio-economic environment of India with special reference to rural India. They would also learn about rural institutions and their nature and role in development. They would not only learn to identify the community needs of development through participatory methods but also would learn to plan, implement and evaluate the extension programmes strategically. The students would value and learn gender mainstreaming in development. The students would gain understanding of concept of communication and development communication. They would practice the use of modern and traditional methods of communication in the real settings (village/slum/tribe). The role of Information Communication Technology (ICT) is paramount now days; hence the students would also learn the use of Information Communication Technology for development. Research is very important component of higher education. The students would learn the basics of planning and carrying out a research study in the area of development communication and extension. Entrepreneurship development would be an integral part of M.Sc Development Communication and Extension curriculum. The basic knowhow will be given to students regarding entrepreneurship development for women. The students would be motivated to start their own enterprise after completion of M.Sc Development Communication and Extension. Social entrepreneurship would be other option for students to engage in.

In a nutshell, the students would be prepared to work in Government organisations (GOs) and Non Government Organisations (NGOs) for community development. They may be absorbed as development communicators. They may start their own ventures. Further, they may also seek employment in research institutions.

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M.Sc. Home Science
Development Communication and Extension

FIRST SEMESTER

S. No.	Subject Code	Course title	Category	Credit	Contact Hours per week			EOSE Duration (Hours)	
					L	T	P	Th.	P
1.	DCE 701	Community organization and extension	CCC	4	4	0	0	3	0
2.	DCE 702	Advanced development communication	CCC	4	4	0	0	3	0
3.	DCE 703	Entrepreneurship development for women	CCC	4	4	0	0	3	0
4.	DCE 711	Advanced development communication	CCC	6	0	0	9	0	4
5.	DCE A01	Research methodology	ECC	4	4	0	0	3	0
6.	DCE A02	Indian Socio-Economic Environment	ECC	4	4	0	0	3	0
7.	DCE A11	Entrepreneurship development for women	ECC	6	0	0	9	0	4
8.	DCE A12	Communication skills	ECC	4	0	0	6	0	4

CCC=18, ECC=18

Total=36

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COMMUNITY ORGANIZATION AND EXTENSION (THEORY)

Paper Code: DCE 701

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

To enable students to :

1. Understand the principles of community organization
2. Acquire skill in developing leadership in rural people
3. To develop understanding about group behaviour and dynamics for effective communication and group management

Contents :

UNIT-I Introduction to extension

- | | |
|----|--|
| 1. | Concept of education, non-formal, formal, informal and extension education objectives of extension education |
| 2. | Scope of extension education |
| 3. | Principles of extension education |
| 4. | Process of extension education |
| 5. | Qualities of an extension worker |
| 6. | Philosophy of extension education |

UNIT- II Concept of community, community structure and organization

- | | |
|-----|---|
| 7. | Community: concept and characteristics of a community. |
| 8. | Structure and organization of different types of communities: tribal, rural and urban and urban slums |
| 9. | Community organization: concept, meaning, scope, principles, process and identifying the role of individuals in the community |
| 10. | Role and quality of a community organizer |

UNIT- III

Group Dynamics

- | | |
|-----|--|
| 11. | Community organizations – PRIs, cooperatives, women organizations, youth organizations and other organizations for community empowerment |
| 12. | Concept of group dynamics - meaning, characteristics, types and functions of groups, stages and process of group formation, group norms and structure |
| 13. | Components of group dynamics - cooperation, competition, communication, group pressure, group cohesiveness, leadership, managing group and team building |
| 14. | Leadership – concept, selection of leader, theories and training for developing leadership |

References:

1. Dahama, O.P. and Bhatnagar, O. P. Education and Communication for Development, Oxford and IBH Publishers, New Delhi, Co. Pvt. Ltd.1999.
2. Supe, S.V. An Introduction to Extension Education, Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi, 1983.
3. Ray, G.L. Extension Communication and Management, Kalyani Publishers, New Delhi, -1991.

ADVANCED DEVELOPMENT COMMUNICATION (THEORY)

Paper Code: DCE 702

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

To enable students to-

1. Understand the various facets of communication and its significance for extension and national development.
2. Understand different forms of media and ways to promote them.

Contents :

UNIT- I Concept and historical overview of development

1. Status of development and communication during the period of great development 3500 BC-1500 AD, period of colonization 16th-20th century AD and the post independence period.
2. Basic concept of development- definition, concept, nature, evolution, significance, functions and dysfunctions, dynamics of development.
3. Models of development:
 - Economic growth model
 - Social equity model
 - Participatory model

UNIT- II Issues to development and development communication

4. Indicators of development- human development index, gender empowerment measures, human poverty index, global ratings of countries based on the indices Classification of regions and countries on the basis of development.
5. Definition, evolution with respect to historical and cultural perspective of development communication.
6. Nature, role and significance of development communication
7. Inter-relationship between development and development communication

UNIT- III Development Communication

8. Models of development communication:
 - Interdependent model
 - Dependency model
 - Basic needs model
 - New paradigm of development
9. Approaches of development communication
 - Diffusion of innovation
 - Empathy
 - Magic multiplier
 - Localized approach
10. Folk Media: folk songs, puppetry, drama, songs, stories, etc.
11. Promotion of development communication by government: role of government agencies like Akashwani, DAVP, IEC bureau, resource centers, IIMC, songs and drama division

etc.

References:

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9. Directorate of Extension, Extension Education in Community Development, Ministry of Agriculture, Government of India, 1971.
10. Rogers, Everett M. Diffusion of Innovations, Free Press, New York, 1962.
11. Government of India, Directorate of Extension New Delhi: Extension Education of Community Development.
12. Saville. A.H. Extension in Rural Communities, Oxford University Press, 1965.
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ENTREPRENEURSHIP DEVELOPMENT FOR WOMEN (THEORY)

Paper Code: DCE 703

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours/Week

Total Teaching Workload: 60 Hours/Semester

Objectives:

To enable students to:

1. Develop understanding of enterprise
2. Develop understanding about entrepreneurial growth
3. To understand the various infrastructures for employment and income generation.
4. Acquire skills in planning project proposals

Contents :

UNIT-I Entrepreneurship

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1.	Concept, growth, role and factors affecting entrepreneurial growth in India
2.	Women entrepreneurship – status, categories, challenges, entrepreneurial opportunities in different sectors,
3.	Entrepreneurship development programmes
UNIT- II Enterprise establishment	
4.	Essentials of enterprise setting <ul style="list-style-type: none"> • Drafting of project proposal. • Insurance. • Registration. • Support Systems : financial and non-financial • Enterprise feasibility and viability – technical , financial, social
5.	Legal aspects <ul style="list-style-type: none"> • Business and industrial laws. • Taxation. • Enterprise implementation and monitoring. • Enterprise growth and development : expansion and diversification • Enterprise failure: causes and remedies
UNIT- III Management of Enterprise	
6.	Finance <ul style="list-style-type: none"> • Maintenance of essential account records • Costing and pricing • Profit and loss calculation • Auditing and preparation of balance sheet
7.	Personnel: organizing worker for better performance: basic principles and techniques.
8.	Marketing, packaging and storing : <ul style="list-style-type: none"> • Marketing, advertising and salesmanship, quality control and improving standards • Packaging, labeling and standardization (ISO, BIS, Agmark and Others) • Managing stores
References :	
<ol style="list-style-type: none"> 1. Jain, D. Women's Employment, Possibilities of Relevant Research, Institute of Social Studies, 1980. 2. Nayak, J. Pinto, T. and Costa, S. Towards Self reliance, Income Generation for Women, ISI Programme of Women's Development, 1980. 3. Mitra, A. The Status of Women, Household and non-Household Economic Activity, ICSSR Programme of Women's Studies III Allied, 1979. 4. Bhatt, E.R. Economic Status of Self Employed Women in Garment Industry, Gandhi Majdoor Sevalaya, Ahmedabad, 1979. 	

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9. Young, T. L. Implementing Project, Sterling Publishers Pvt. Ltd., New Delhi, 1998.
10. Akhouri, M.M.P. Entrepreneurship for women in India, New Delhi, NIESBUD, 1990.

Periodicals:

1. Yojana, Publication Division, New Delhi.
2. Kurukshetra Publication Division, New Delhi.

ADVANCED DEVELOPMENT COMMUNICATION (PRACTICAL)

Paper Code: DCE711

Credits: 6

Max. Marks: 100

Teaching Hours: 3 Practicals/Week (3 Hours/practical)

Teaching Workload: 45 Practicals /Semester

Objectives :

1. To sensitize students regarding the functioning, strength and weakness of developmental organizations.
2. To develop the skill of critical analysis
3. To develop the skill of designing communication material for communication kit
4. To make them enable to express themselves through folk media to enrich their skill in organizing an exhibition

Contents :

1	Visit to developmental organizations with special reference to their structure, activities/programmes, strengths and weaknesses and Collect & analyze IEC material(soft/hard copy) <ul style="list-style-type: none"> • Self help Groups • Youth organizations • Non Government Organizations • Caste based organizations • Local unit of ICDS (Aanganwari) • Panchayati Raj Institutes • Public health centers
2	Prepare, present and discuss the report of visits
3	Develop skill in designing various communication material for communication kit (Poster, Chart, folder, flash cards, pamphlets etc) based on the experience drawn from visits and classroom discussions

4	Develop skills in folk media 1) Puppetry <ul style="list-style-type: none"> • Develop a story • Preparation of puppets • Puppet play 2) Social drama
5	Plan and arrange an exhibition of designed IEC material

RESEARCH METHODOLOGY (THEORY)

Paper Code : DCE A01

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours/Week

Total Teaching Workload: 60 Hours/Semester

Objectives :

1. To understand the basic concepts of research methodology.
2. To be able to understand the various steps of research methods.
3. To enable the students to understand various research designs, sampling techniques, methods of collecting data.
4. To enable the students to prepare and present report for dissertation purpose

Contents :

UNIT-I

1. Research purpose and objectives.
2. Definition and identification of research problem, selection of problem, hypotheses, basis assumption and limitation of problem.
3. Review of literature: importance, sources and writing review of literature.
4. Research designs: purpose and types.

UNIT-II

5. Technique of sampling- Census and sampling methods, probability and non-probability sampling procedures, sample size.
6. Data gathering instruments, measurements and scales, reliability and validity of measuring instruments- Questionnaire, Schedule, Score card, checklist.
7. Methods of collecting data: Questionnaire, interview technique, observation, case study, focus group discussion.

UNIT-III

8. Planning, executing and analysis of large scale surveys with special emphasis of surveys in Home science.
9. Presentation and preparation of report for dissertation publication.
10. Bibliography: Importance of method of writing references of book, journals, proceedings and websites.

References :

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1. Simpson, George, Kafka, Fritz, Basic statistics: a textbook for the first course , Oxford and IBH Publishers, New Delhi, 1977.
2. Taro Yamme, Sampling Theory, Prentice-Hall Publishers, New Delhi 1967.
3. Snedecor and Cochran, Statistics Methods, Oxford and I.B.H. Publishers, Calcutta, 1968.
4. Gupta S.P., Statistics Methods, Sultan Chand and Co., New Delhi, 2008.
5. Good C.V. and Carter D.E., Methods of Research-Educational Psychological Application, Century Craft, New York 1954.
6. Kerlinger F.A., Foundation of Behavioural Research, Century Craft, New York, 1966.
7. Yound P.V. and Schind C.G., Scientific Social Survey and Research, Prentice Hall, New Delhi, 1968.
8. Philips B.S. Social Research. Strategy and Tactics, MacMillan, New York, 1976.
9. Mussed Paul, Hand book of Research Methods in Child Development, John Wiley & Sons Inc, 1960.
10. Devdas R.P. and Kulandaivel, Hand Book of Research Methodology, Sri Ram Krishna mission vidhyalaya, 1971.
11. Krishnaswami R.P., Methodology of Research in Social Sciences, 1st edition, Himalaya Publishing house, Mumbai, 1993.

INDIAN SOCIO - ECONOMIC ENVIRONMENT (THEORY)

Paper Code: DCE A02

Credits: 4

Max. Marks: 100

Teaching Hours: 4hours /week

Total Teaching Workload: 60 hours /semester

Objectives:

To enable students to:

1. understand the social structure of India
2. study the social changes taking place and their impact on society
3. develop understanding regarding rural economic environment
4. orient to concepts of economics

Unit I Rural sociology

- | | |
|---|--|
| 1 | Orientation and characteristics of rural and tribal society, rural urban differences. |
| 2 | The physical structure of rural society- pattern of rural settlement, rural resources- man made and human resources, Societal and cultural factors in population change. |
| 3 | Social institute- concept and functions, major institutes- family, religion, economy and education |
| 4 | Social change: nature, meaning , directions and role of women in social change, planned social change |
| 5 | Social issues- education, employment, population, health and sex ratio, migration, slums |
| 6 | Social Organizations- Characteristics and classification |
| 7 | Basic elements of rural development |
| 8 | Barrier to rural economic development |
| 9 | Role and contribution of women in rural economy |

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Unit II Introduction to economic environment

- 10 Concept and features of rural economic environment
- 11 Rural marketing- concept and features
- 13 Concept of micro and macro economics
- 14 Classification of economics – capitalistic, socialist, mixed economy, Close and open economy.
- 15 Basic features and challenges of Indian economy

Unit III Dynamics of rural economic environment

- 16 Latest trends of key contributors to Indian economy - agriculture sector, service sector, manufacturing sector, infrastructure
- 17 Rural Credit- Evolution, reforms , importance, problems and agencies supplying rural credit
- 18 Rural transport- need, advantages and contribution to economic environment
- 19 Land reforms – Major amendments- Abolition of Intermediaries (Abolition of Zamindari,), Ceiling on land holdings, Consolidation of Holdings, Co-operative farming and Land acquisition bill
- 20 Rural Industries- Classification and basis for classification of small-scale cottage activities, medium-scale village enterprises, and large-scale rural industries.
- 21 Co-operatives- Concept and contribution

References

1. Ahluwalia, M.S., India's Economic Reforms and Development, Oxford University Press. 2000
2. Dutt. R.M. and Sundaram, K.P.M. Indian Economy, Niraj Prakashan, New Delhi, 1977.
3. Agrawal, A.N. Indian Economy – Problems of Development and Planning, New Age Publishers, New Delhi, 1983.
4. Dhingra, I.C. The Indian Economy – Resources planning Development and Problems, Sultan Chand & Sons, New Delhi, 1981.
5. Sundram, K.P.M. Introduction to Indian Economy. Sultan Chand & Sons, New Delhi, 1983.
6. Dhingra, T.C. Agricultural Economy of India. Sultan Chand & Sons, New Delhi, 1983.
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8. Chitambar, J.B . Introductory Rural Sociology. New Age International Publisher. New Delhi, 1997

Journals

1. Economics and Political Weekly.
2. Journal of Rural Development
3. Kurukshetra, Publication of Development, Govt. of India, New Delhi.
4. Social Change (Council of Social Development, New Delhi).
5. Vohra, Publication of Development, Govt. of India, New Delhi.

ENTREPRENURSHIP DEVELOPMENT FOR WOMEN (PRACTICAL)**Paper Code: DCE A11****Credits: 6****Max. Marks: 100****Teaching Hours: 3 Practicals/ Week (3 Hours/Practical)****Total teaching Workload: 45 Practicals / Semester**

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Objective-

1. To develop entrepreneurship skills among students

Content

1. Visit to micro enterprises and preparation of report
2. Talk by members of funding agencies , bank and related institutions
3. Study of registers and records maintained by entrepreneurs
4. Study the legal and administrative aspects of micro enterprises
5. Identifying schemes of banks and other agencies for entrepreneurs
6. Prepare a project/ business plan proposal
7. Presentation and discussion of business plan

COMMUNICATION SKILLS (PRACTICAL)

Paper Code: DCE A12

Credits: 4

Max. Marks: 100

Teaching Hours: 2 Practicals/Week (3 Hours/Practical)

Total Teaching Workload: 30 Practicals /Semester

Objectives:

The students should be able to :

1. Develop and apply skills of oral presentation, discussion, writing composition, CV, minutes reports.
2. Read and write notes from different sources.
3. Search and interpret information from various sources.
4. Use appropriate skills in interpreting and answering oral and written questions in tests, examinations and other contexts.

Contents :

1. Searching Information
 - Using library and internet.
 - Using a dictionary and encyclopedia, thesaurus.
2. Taking and making notes
 - Notes taking skills.
 - Notes making skills
3. Reading skills:
 - Skimming and scanning skills.
 - Intensive and extensive reading.
 - Copying with unfamiliar words.
4. Writing skills
 - Referencing skills.
 - Composition writing.
 - Writing curriculum vitae (cv) and minutes
5. Oral presentation

- Treatment of reports for presentation.
 - Practice in using media in oral presentation
6. Interview skills
 7. Importance of feedback – during and after communication

References:

1. Harmer, J. The Practice of English: Language Teaching, Longman Group, UK, 1991.
2. Raman, M. and Sharma, S. Technical Communication- Principles and Practice, Oxford University Press, New Delhi, 2004.
3. Barker, A. Improve Your Communication Skills – Kogan Page India Pvt. Ltd, New Delhi, 2006.
4. Doff, A. and Jones, C. Language in Use (Upper – Intermediate), Cambridge University Press. First South Asian Edition. 2004.
5. Selly, J. The Oxford Guide to Writing and Speaking, Oxford University Press, New Delhi, 2004.

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SECOND SEMESTER

S. No.	Subject Code	Course title	Category	Credit	Contact Hours per week			EOSE Duration (Hours)	
					L	T	P	Th	P
1	DCE 801	Life Long Learning	CCC	4	4	0	0	3	0
2	DCE 802	Extension Programme Design and Evaluation	CCC	4	4	0	0	3	0
3	DCE 803	Training Process and Methods	CCC	4	4	0	0	3	0
4	DCE 811	Extension Programme Design and Evaluation	CCC	6	0	0	9	0	4
5	DCE B01	Statistics	ECC	4	4	0	0	3	0
6	DCE B02	Human Rights and Duties	ECC	4	4	0	0	3	0
7	DCE B03	Science and Technology for Development	ECC	4	4	0	0	3	0
8	DCE B11	Entrepreneurship Development for Women- II	ECC	4	0	0	6	0	4
9	DCE B12	Training Process and Methods	SSECC	2	0	0	3	0	4

CCC=18, ECC=18

Total=36

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SECOND SEMESTER

LIFE LONG LEARNING (THEORY)	
Paper Code: DCE 801 Credits: 4 Max. Marks: 100 Teaching Hours: 4 Hours /Week Total Teaching Workload: 60 Hours /Semester	
Objectives- To enable students to: <ol style="list-style-type: none"> 1. understand the conceptual framework of adult and lifelong learning. 2. gain insight into the relationship between literacy, adult education and lifelong learning. 3. understand the role of lifelong learning in context of Nation building. 	
Content	
Unit- I	
1	Concepts and terminologies related to lifelong learning: andragogy and pedagogy, lifelong learning, continuing education, formal education, non-formal education, incidental learning, illiteracy and its forms
2	Introduction to adult learning, characteristics of adults, learning span, factors facilitating adult learning
3	Application of learning principles in practice of lifelong learning,
4	Genesis, history and growth of the LLL/ non-formal education programme in India
5	Agencies involved: role of Indian Adult Education Association, Indian University Association for Continuing Education, State Resource Centre, Universities, Department of Education and Adult Education of the Centre and States. NGO/VO, NLM authority, SLM authority, Jan Shikshan Sansthan in LLL/ non formal education
Unit - II	
6	Curriculum of Non-formal Education: Preparation of need based curriculum for different kinds of adult education and functional literacy programmes for adults.
7	Materials for adult education- primers, teacher guides, work books and instructional aids. Preparation, selection and use of different learning materials for various target groups. Use of various extension teaching methods and audio visual aids, relevance of digital primer in adult education for India and the region, importance of the use of folk media
Unit -III	
8	Importance of Experiential learning for Adults- characteristics and steps of experiential learning cycle
9	Steps in organizing educational programme for adults, planning and execution of the programme involving various government and non-government agencies and institutions.
10	Contemporary Programmes by government of India, Sarva Sikshan Abhiyan, Bharat Sakshar
References	
1. www.unesco.org/education/aladin/paldin/pdf/course_01.pdf	

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2. En.wikipedia.org/wiki/lifelong_learning
3. Preece, J. Lifelong Learning and Development: A southern Perspective, London. Continuum International Publishing Groups, 2009
4. Rajesh and Dixit, V.K. Life long Learning: Issues and Challenges, Global book Organisation, New Delhi . 2011
5. Singh, Madhu, Life long Learning, Humbert: UNESCO Institute of Life Long Learning, (2002),
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7. Armstrong, M. A hand book of Human Resource Management Practices, UK: Kogan Page Limited, 2007
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9. Vle.du.ac.in

Periodicals:

1. Indian Journal of Adult Education. Indian Adult Education Association, New Delhi.
2. Social Change, Council of Social Development, New Delhi.
3. Indian Journal of Extension Education, Indian Society of Extension, Education, New Delhi

EXTENSION PROGRAMME DESIGN AND EVALUATION (THEORY)

Paper Code: DCE802

Credits: 4

Max. Marks: 100

Teaching Hours: 4 hours /week

Total Teaching Workload: 60 hours /semester

Objectives:

To enable students to

1. understand the extension programme and their planning
2. understand the need assessment techniques and plan of work
3. understand the relationship of programme implementation, monitoring and evaluation

Contents:

UNIT- I

1. Extension Programme: Meaning, need and characteristics
2. Programme objective: Meaning, role, levels, components, qualities, and writing programme objectives
3. Need and Need identification: Concepts, characteristics and types of needs, Applications of different PRA techniques in need identification
4. Application of management principles in design extension programme
5. Programme Planning: meaning, nature and principles

Unit -II

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6	Process of programme planning
7	Plan of work: Meaning, importance, elements, criteria of a good plan and developing a plan of work
8	Programme implementation: Meaning, steps
9	Problems in implementation
10	Role of local bodies and extension agencies in programme implementation
UNIT -III	
11	Feedback - role of management information systems
12	Monitoring: concept, purpose, types and steps
13	Evaluation: Meaning, objectives, purpose, types, steps, tools and techniques for evaluation
14	Follow up : Needs, methods and making the programme self sustaining
15	Report writing and documentation: preparing a project report: need and procedure for reporting and documentation
References:	
<ol style="list-style-type: none"> 1. Burkley, S. People First: A Guide of Self Reliant Participatory Development. London: Zed - Books, New Delh., 1993. 2. The Right to Development, Centre for Development and Human Rights, New Delhi, 2003 3. Drez, J. and Sen, A.K. India-Economic Development and Social Oxford University Press, New Delhi, 1995. 4. Edwards, M. and Hulme, D. Making a Difference: NGOs and Development in a Changing World. Earthscen Publications Ltd. London, 1992. 5. Edwards, M. and Hulme, D. Beyond the Magic Bullet: NGO Performer and Accountability in the Post Cold War World. Kumarin Press, West Hartford, Connecticut, 1996. 6. Fischer, J. NGOs and Political Development of the Third World. Kumarin Press, West Hartford, Connecticut, 1998. 7. Grayson, D. and Hodges, A. Corporate Social Opportunity. Greenleaf Publishing Ltd. Sheffield, U.K., 2004. 8. Gedam, R. Development planning – Origin and Growth. Akashdeep Publications, New Delhi.1991. 9. Korten D.C. People Centered Development – Greeting to the 21stCentury, Kumarin Press, West Hartford, Connecticut, 1990. 10. Kumar S. Methods for Community Participation. Sage Publications, New Delhi, 2002. 11. Padaki. V and Vaz M. Institutional Development in Social Intervention. Sage Publications, New Delhi, 2003 12. Pareek U. Behavioral Process in Organizations. Oxford and IBH. New Delhi, 1989. 13. Reidar, D. Evaluating Development Programme and Projects. Sage Publications, New Delhi, 2004. 14. Singh, K. Rural Development – Principals Policies and Management. Sage Publications. New Delhi, 1999. 15. Govind, S., Tamilseivi G. and Meenambigai, J. , Extension Educational and Rural 	

Development, Agrobios , Jodhpur, 2011.	
TRAINING PROCESS AND METHODS (THEORY)	
Paper Code: DCE 803	
Credits: 4	
Max. Marks: 100	
Teaching Hours: 4 hours /week	
Total Teaching Workload: 60 hours/semester	
Objectives:	
To enable students to:	
1. understand the concept of training, process, and design component of training.	
2. develop skills regarding training management.	
Unit - I	
1.	Training- definition, concept, importance and features
2.	Difference between education and training
3.	Need Assessment
4.	Types – institutional, non institutional, orientation, refresher and in-service training
5.	Experiential Learning cycle of Training
6.	Elements of effective training
UNIT- II	
7.	Phases of training- Pre training, training and post training
8.	Elementary idea of training methods
9.	Designing training schedule
10.	Designing lesson plan for training
11.	Training evaluation
12.	Management of training programme Physical arrangement- Selection of participants, selection of resource persons, aids, equipment, transformation, finance and monitoring of training
Unit - III	
13.	Organizational factors
14.	Funding agencies- ATMA, NABARD, RUDA, CAPART, RMoL etc
15.	Training Institutes- NIPCCD, RUDSET, NIRD, SIRD, KVK etc
References :	
1. Dahama O.P. and Bhatnagar O.P. Education and Communication for Development. Oxford and IBH Publishing, New Delhi, 1980.	
2. Arthur, W A., Winston B., Edens PS, and Bell ST. "Effectiveness of Training in Organizations: A Meta-analysis of Design and Evaluation Features." Journal of Applied Psychology, 2003: 234-245.	
3. Desi, D.K. Management in Rural Development. Oxford and IBH, New Delhi, 1983.	
4. Krishna, M. Project Planning in India. HPA, New Delhi, 1983.	
5. Devadas, R.P. Planning and Programme Adult Education. University of Madras, Monograph.XIV, Chennai, 1978.	

6. Reddy AA. Extension Education. Sri Lakshmi Press, Bapalt, 1971.
7. Bhatti, M. and Kaur, S. "The Role of Individual and Training Design Factors on Training Transfer." Journal of European Industrial Training. 2009, 34 (7), 656-672.
8. Allan, D. P. Managing the Training and Development Function. Second Edition, pp.3-8, Jaico Publishing House, Mumbai, 1995.

EXTENSION PROGRAMME DESIGN AND EVALUATION (PRACTICAL)

Paper Code: DCE 811

Credits: 6

Max. Marks: 100

Teaching Hours: 3 Practicals /Week (3 Hours/Practical)

Total Teaching Workload: 45 Practicals /Semester

Objectives :

The students should able to:

1. Design a need based extension programme.
2. Acquire skills in various extension teaching methods namely Demonstration, Role play and Group discussion etc
3. Acquire skills in evaluation of teaching aids and extension programme
4. Gain knowledge about corporate houses and agencies which are doing extension work and providing resources for extension work.

Contents:

1. Need assessment of the nearby rural/slum community
2. Design extension programme on the basis of identified needs and develop skills in the followings for successful implementation of the same-
 - Prepare lesson plan and develop skill in extension teaching methods, applicable to designed programme namely demonstration, lecture, group discussion, role play etc.
 - Design appropriate teaching aid to support selected teaching method
 - Evaluation of developed teaching aids
3. Implement designed extension programme in the field
4. Evaluation of implemented programme in field
5. Select one corporate house and document, its extension activities/concerns.
6. Document the agencies providing different resources for extension work.

STATISTICS (THEORY)

Paper Code: DCE B01

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

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Objectives	
<ol style="list-style-type: none"> To understand the basic concepts of statistics. To enable the students to understand various types of statistical tools and their interpretation 	
Contents:	
UNIT- I	
1.	Statistics: meaning, scope and importance in research
2	Classification and Tabulation
3	Measures of Central Tendency and Dispersion (Mean, Median, Mode, Quartiles, Range and Standard Deviation).
4	Graphic and Diagrammatic representation of data (Frequency, Histogram, Graphs, Bar-diagram and Pie charts).
UNIT- II	
5	Elementary ideas on Probability (Simple Probability) Skewness and Kurtosis definition. Elementary ideas of random variable and its density function (Binomial, Poison, Uniform, Normal varieties, Normal distribution and its properties, Use of Normal probability tables).
6	Elements of testing a Statistical Hypothesis- Formulation of the problem, Definition of type I and II errors. Level of Significance, t-test, Z-test.
UNIT - III	
7	Design of Experiment: Analysis of Variance
8	Correlation and Regression: Correlation and its interpretation. Product moment and Rank order. Correlation Coefficient Regression Equations (without derivation) and its interpretations, use of prediction.
9	Non-parametric Inference: Sign, Mann Whitney and Chi square test (as goodness of fit and independence of attributes in 2*2 and r*c contingency tables).
10	Use of computer of statistical analysis using SPSS.
References:	
<ol style="list-style-type: none"> Simpson G, Kafka F. Basic statistics: a textbook for the first course, Oxford and IBH Publishers, New Delhi, 1977. Taro Yamme, Sampling Theory, Prentice-Hall Publishers, New Delhi 1967. Snedecor and Cochran, Statistics Methods, Oxford and I.B.H. Publishers, Calcutta, 1968. Gupta SP. Statistical Methods, Sultan Chand and Co., New Delhi, 2008. Good CV and Carter DE. Methods of Research-Educational Psychological Application, Century Craft, New York 1954. Kerlinger FA. Foundation of Behavioural Research, Century Craft, New York, 1966. 	

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11. Krishnaswami RP. Methodology of Research in Social Sciences, 1st edition, Himalaya Publishing house, Mumbai, 1993.

HUMAN RIGHTS AND DUTIES (THEORY)

Paper Code: DCE B02

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

1. To enable the students to understand the issues concerning the rights and duties in general and the marginalized groups in particular.
2. To practice on self these values of self inculcation, endeavor to live up to the ideals i.e. duty to respect other's rights, respect each other's human dignity.

Contents:

UNIT- I

1. Background of human rights

- History and origin of human rights
- Indian constitution and human rights
- Human rights in international context (UN)
- Universal declaration of human rights:1948
- International covenants on civil and political rights 1966.
- International covenants on economic, social and cultural Rights 1966
- Convention on elimination of all forms of discrimination against women 1979.
- Convention on the rights of the child 1989
- UN declaration and duties and responsibilities of individuals 1997
- UN High commission for human rights and the committees under the various conventions.

2 Concept of Human Rights and Duties

- Values: dignity, liberty, equality, justice, unity in diversity.
- Inherent, inalienable, universal and indivisible

3 Classification of rights

4 Classification of duties

UNIT-II

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5	Human rights and duties in India <ul style="list-style-type: none"> • Evolution • Fundamental rights • Directive principles of state policy
6	Fundamental duties
7	Judiciary
8	National and state human rights commission and other grievance
9	Redressed mechanisms
10	NGOs, social movements and pressure groups
11	Information media
UNIT- III	
12	Importance of internalizing of human rights and duties- urgent need for not only sensitizing others of human rights and duties, but of practicing on self those values <ul style="list-style-type: none"> • Self inculcation • Endeavor to give up to those ideas • Duty to respect other's rights • Respect each other's human dignity
13.	Societal problems in private and public domains <ul style="list-style-type: none"> • Core Problems: poverty, underdevelopment and illiteracy • Some specific problems: <ol style="list-style-type: none"> i. Commercial and caste conflicts and tensions ii. Discrimination and violence against women and children sexual harassment iii. Violence, trafficking child labour, bonded labour and others. iv. Custodial violence v. Problems of health and environmental protection
References:	
<ol style="list-style-type: none"> 1. Agarwal A and Narain S. Global Warming and Unequal world: A Case of Environmental colonialism. Center for Science and Environment, New Delhi, 1991. 2. Baxi U. The Future of Human Rights, Oxford University Press, New Delhi, 2002. 3. Beteille A. Antinomies of Society: Essays on ideology and institutions: Oxford University Press, New Delhi, 2003 4. Chandhoke N. Conceits of civil Society. Oxford University Press, New Delhi, 2003. 5. Geetha V. Gender, Street Publication, Kolkata, 2002. 6. Shanshyam S. Social Movements in India. Sage Publication, New Delhi, 1991. 7. Guha, Ramachandra and MadhavGadgil. Environmental History of India. University of California Press, Berkeley, 1993. 8. Haragopal, G. The Political Economy of Human Rights. Himachal Publishing House, Mumbai, 1997. 9. Menon, Nivedita (ed). Gender and Politics in India, Oxford University Press, New Delhi, 2000. 10. Patel S et al. Rethinking Social Science in India. Sage Publications, New Delhi, 2003. 11. Rao A. Gender and caste: Issues in Contemporary Indian Feminism, Kali for women. New Delhi, 2003. 12. Shah N and Gandhi N. Issues at stake: Theory and Practice in the Contemporary Women's Movement in India, Kali for Women. New Delhi, 1992. 	

SCIENCE AND TECHNOLOGY FOR WOMEN (THEORY)

Paper Code: DCE B03

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

To enable the students to -

1. develop a scientific temper to promote rural development.
2. gain knowledge in applied technologies for rural development with special reference to women.

Unit- I

1. Appropriate technology - Meaning of appropriate technology, affordable technology, intermediate technology; criteria, need and classification of technology
2. Transfer of technology- concept and factors affecting TOT
3. Role of science and technology in empowerment of women, challenges faced by rural women in accessing technology
4. Women workload in changing context- economic changes, environmental changes and socio- cultural changes
5.
 - Waste management- concept, types of wastes and waste recycling .
 - Improved grain storage at domestic level, farm level and at large scales

UNIT- II

6. Technologies for rural women and their management-
 - Food processing- science and technology as applied to the field of nutrition – low cost, indigenous, fast and convenience foods,
 - Food preservation
 - Vermicomposting
 - Kitchen gardening
7. Energy management-
 - Fuel Management – Use of fuel wood – present practices and problems, smokeless Chulah , use of 'alternate' non-conventional sources of energy including wind and wave

UNIT- III

8. Energy management-
 - Biogas- Scope and principles and application
 - Solar Energy- scope , advantages and solar energy devices
9. Agencies involved in promoting science and technology for rural development - institutions involved – DST, CAPART, Indian Renewable Energy Development Agency (IREDA), Ministry of Non-conventional Energy Sources , FAO, ICAR

References-

1. Raj Mohini, S. Women in Agriculture Kaveri Printers, New Delhi, 1991.
2. Campbell, M.J. (Ed.) New Technology and Rural Development, Billings and Sons Ltd., Great Britain, 1990.
3. Punia, R. K. Women in Agriculture, Vol. I and II, Northern Book Centre, New Delhi, 1991.
4. Chawla, O.P. Advances in Bio-gas Technology, Indian Council of Agricultural Research, New Delhi. 1989

5. Garg, H.P. and Prakash, J. Solar Energy – Fundamentals and Applications, Tata McGraw Hill Publishing Company Ltd., New Delhi, 1997.
6. David E. Energy, Society and Environment – Technology for a sustainable future, Routledge Publishers, London, 1997.
7. Swaminathan, M. Advanced Textbook on Food and Nutrition, The Bangalore Printing and Publishing Co. Ltd., 2nd Edition, 1985.
8. Department of Science and Technology, Models for Rural Application, Progressive Printers, New Delhi, 1995.
9. Prescott, B.C. and Proctor, B. K. Food Technology, McGraw Hill Book Company, New York, 1987.
10. Vinkata RP. Rural and Renewable Energy: Perspectives from Developing Countries, Tata Energy Research Institute, New Delhi.
11. Qasim, S.Z. Science and Quality of Life, The off setters, New Delhi, 1992.
12. Centre of Science for Village, Wardha – Science and Technology for Women (A Compendium of Technologies), Department of Science and Technology, New Delhi, 1989.
13. Siddappa, L. S. and Tandon, G. M. Preservation of Fruits and Vegetables, ICAR, New Delhi, 1984. Prescott, S.C. and Proctor, B. K., Food Technology, McGraw Hill Book Company, New York, 1987.

Journals

1. Yojana
2. CAPART Press Clippings.
3. Khadi Gramodyog
4. Construction on Rural Technology

ENTREPRENEURSHIP DEVELOPMENT FOR WOMEN-II (PRACTICAL)

Paper Code: DCE B11

Credits: 4

Max. Marks: 100

Teaching Hours: 2~~Prac~~/week (3 Hours/ Practical)

Total Teaching Workload: 30 practicals/semester

Objectives :

To enable students to develop skills in entrepreneurship development

Contents :

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1	<p>Visit to support agencies and find out their schemes for women entrepreneurs</p> <p>1. Non-Financial</p> <ul style="list-style-type: none"> • DIC (District Industrial Centre) • Pollution Control Board • SSIB (Small Scale Industries Board) <p>2. Financial</p> <ul style="list-style-type: none"> • RFC (Rajasthan Finance Corporation) • RIICO (Rajasthan Industrial Investment Corporation) • SIDBI (Small Industries Development Bank of India)
2	<p>Explore the possibilities for enterprises run by women in the field of</p> <ol style="list-style-type: none"> a) Clothing Industry b) Textile Industry c) Food Industry d) Ancillary Industry
3	Find out their motivating sources to start the enterprise and their problems.
4	Find out the measures taken by them to solve the problems
5	Explore the various schemes of the government to promote entrepreneurship.
6	Exploring various entrepreneurial opportunities in the field of Home Science.
7	<p>Plan a business plan proposal on the following points.</p> <ol style="list-style-type: none"> a) Entrepreneurs/ Enterprise details b) Equipment details c) Procedures for production d) Financial projections e) Technical projection f) Suppliers details (Raw material, Equipments) g) Marketing strategies
8	Case study of successful entrepreneurs
9	Lectures by the representatives of various agencies (FICCI, women entrepreneurs, Government agencies banks etc.)
10	Collection of various labels, Packets and standardization measures. (BSI, ISI, Ag Marks)

TRAINING PROCESS AND METHODS (PRACTICAL)

Paper Code: DCE B12

Credits: 2

Max. Marks: 100

Teaching Hours: 1 Practical /Week (3 Hours/Practical)

Total Teaching Workload: 15 Practicals /Semester

Objectives :

To enable students to develop skills in

1. designing training programme
2. organizing training
3. evaluate a training programme

Contents :

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1.	Designing training schedule up to 2 days on the basis of assessed need in previous semester
2.	Developing lesson plan according to the schedule
3.	Preparation of tool for pre and post test
4.	Organizing of a training programme a) Pre test b) Implementation of two days training c) Post test
5.	Evaluation of the conducted training

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THIRD SEMESTER

S. No	Subject Code	Course title	Category	Credit	Contact Hours per week			EOSE Duration (Hours)	
					L	T	P	Th.	P
1	DCE 901	Extension Management	CCC	4	4	0	0	3	0
2	DCE 902	Developmental Goals & Strategies	CCC	4	4	0	0	3	0
3	DCE 903	Mass media for Development	CCC	4	4	0	0	3	0
4	DCE 911	Mass Media for Development	CCC	6	0	0	9	0	4
5	DCE C01	Scientific Writing	ECC	4	4	0	0	3	0
6	DCE C02	Psychology of Human Behaviour	ECC	4	4	0	0	3	0
7	DCE C11	Contemporary Developmental Issues in Home Science	SSECC	4	0	0	6	0	1
8	DCE C12	Dissertation-I	ECC	6	0	0	9	0	1

CCC=18, ECC=18
Total=36

(120)

THIRD SEMESTER

EXTENSION MANAGEMENT (THEORY)	
Paper Code: DCE901 Credits: 4 Max. Marks: 100 Teaching Hours: 4Hours /Week Total Teaching Workload: 60Hours /Semester	
Objectives: To enable students to : <ol style="list-style-type: none"> 1. understand the principles and characteristics of extension management 2. understand management of human resources in extension organization 	
Contents : UNIT-I	
<ol style="list-style-type: none"> 1. 2. 3. 4. 	Extension Management- meaning, nature, characteristics and scope Principles of extension management Competencies required by extension managers Planning- meaning, elements, characteristics and types. decision making- meaning and process
UNIT-II	
<ol style="list-style-type: none"> 6. 7. 8. 9. 	Organizing- meaning, types of organizations, forms of organization structure and process, delegation of authority- meaning, need, principles, centralization and decentralization in organization Coordination- meaning, ways of achieving coordination in organization Staffing- Meaning, staff selection and orientation of staff, manpower planning Directing- meaning, motivation of extension personnel, Maslows theory of motivation
UNIT-III	
<ol style="list-style-type: none"> 10. 11. 12. 	Controlling- meaning and techniques of controlling – budgetary and non budgetary control and modern techniques- PERT and CPM Reporting and budgeting- concept, procedure of writing report Managing human resources within extension - job analysis and performance appraisal, recruitment of the extension personnel, training of the workers, stress management, stimulus and incentives , supervision, ways to achieving effective human relations
References:	
<ol style="list-style-type: none"> 1. Banerjee, S. (1981): Principles and Practice of Management, Oxford and IBH Publishing Company, New Delhi. 2. Ahuja, KK. (1983): <i>Personnel Management</i>. Kalyani 3. Tripathi, PC & Reddy RN. 1983. <i>Principles of Management</i>. Tata McGraw Publ 4. Basu, C.R. (1989): Organisation and Management, S. Chand & Co. Ltd., New Delhi. 5. Burton, Gene and HanabThakar (1997): Management Today: Tata McGraw Hill Publishing Company, New Delhi. 6. Dhama, O.P & Bhatnagar O.P. (1991): Education and Communication for Development. Oxford & IBH. 7. Chandan, J.S. (1997): Management – Concepts and Strategies, Vikas Publishing House, New D. 	

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Delhi.

8. Hersey, Paul and Kenneth, H. Blanchar (1996): Management of Organisational Behaviour, Utilising Human Resources, Prentice Hall of India Private Limited, New Delhi.
9. Koontz and Heinz Weihrich (1990): Essentials of Management, McGraw-Hill, New Delhi.
10. Prasad, M.L. (1999): Principles and Practice of Management, Sultan Chand & Sons, New Delhi.
11. Ramasamy, T. Principles of Management, Himalaya Publishing House, Mumbai.
12. Rao, V.S.P. and Narayana, P.S. (1987): Principles and Practice of Management, Konark Publishers Private Limited, New Delhi.
13. Tripathi, P.C. and Reddy, P.N. (1993): Principles of Management: Tata McGraw Hill, New Delhi.
14. Grover, I. (2002): Extension Management. Agrotech Publ
15. Basu, D. (2006) Participatory Monitoring & Evaluation of Development programmes: *Prationer's Guide*. Agrotech Publ. Academy.
16. Adhikary, MM. (2006): *Participatory Planning & Project Management in Extension Sciences*. Agrotech Publ. Academy.
17. Ray, G.L. (2006): *Extension Communication and Management*. Kalyani Publishers, New Delhi
18. Rajpurohit, R.S., Sharma, A, Sharma, S. and Gupta, A. (2013): *Management*. Ajmer book company Publishers, Jaipur

DEVELOPMENTAL GOALS AND STRATEGIES (THEORY)

Paper Code: DCE902

Credits: 4

Max. Marks: 100

Teaching Hours: 4Hours /Week

Total Teaching Workload: 60Hours /Semester

Objectives:

To enable students to:

1. Understand the development and indicators of development.
2. Understand the concept of sustainable development and developmental policies.

Contents:

Unit- I Concept and Historical Overview of Development

- | | |
|----|---|
| 1. | Development: Meaning, definition, evolution, concept, significance and paradigms of development |
| 2. | Goals and challenges of development |
| 3. | Millennium development goals |
| 4. | Models of development <ul style="list-style-type: none">• Economic Growth Model• Social Equity Model• Participatory Model |

Unit – II Sustainable Development

- | | |
|----|--|
| 5. | Indicators of Development – Human development index (HDI), Gender empowerment model, Human poverty index , human suffering Index etc |
| 6. | Sustainable development: concept, philosophy, goals and challenges |

7.	Dimensions of sustainable development
8.	Indicators of sustainable development
9.	International commitments towards sustainable development

Unit –III Development Programmes and Policies

10.	Need of planning in India and role of planning commission and National Development Council and NITI Aayog
11.	Five Year Plans of India
12.	History and assessment of poverty alleviation programmes in India
13.	Role of Panchayati Raj Institutions (PRIs) in rural development
14.	Flagship programmes of government of India

References :

1. Agrawal, AN. Indian Economy – Problems of Development and Planning, New Age Publishers, New Delhi, 1983.
2. Dhingra, IC. The Indian Economy – Resources planning Development and Problems, Sultan Chand & Sons, New Delhi, 1981.
3. Sundram, KPM. Introduction to Indian Economy. Sultan Chand & Sons, New Delhi, 1983.
4. Dhingra, TC. Agricultural Economy of India. Sultan Chand & Sons, New Delhi, 1983.
5. Gedam, R. Development planning – Origin and Growth. Akashdeep Publications, New Delhi, 1991.
6. Korten DC. People Centered Development – Greeting to the 21st CenturyKumarin Press, West Hartford, Connecticut, 1990

MASS MEDIA FOR DEVELOPMENT (THEORY)

Paper Code: DCE903

Credits: 4

Max. Marks: 100

Teaching Hours: 4Hours /Week

Total Teaching Workload: 60Hours /Semester

Objectives:

1. To impart knowledge and understanding of various media.
2. To enhance the versatility of the students in the selection and use of media in different socio-cultural environments.
3. To provide basic knowledge of concept of advertising and use of media in advertising.

Unit -I

1	Concept, meaning, types, functions, characteristics and scope of various medias in national development
2	Contemporary issues in mass media and development
3	Credibility for media
4	Sources of information for media production
5	Career options in different media
6	Ethics in media
7	Regulating bodies for media- print and broadcast

Unit- II

8	Print Media-
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	<ul style="list-style-type: none"> • History and development of print media • Essentials of good writing • Art of expression, • Readability and importance of punctuation for effective writing • Forms of print media • News paper- role and advantages • Advertisement- types and component
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Unit- III

9	Radio- <ul style="list-style-type: none"> • History and development of broadcasting • Principles of writing for radio • Radio studio and radio programme production • Anchoring radio programme- essentials of effective speaking • Different styles of radio broadcast- News writing, Feature, Talk, Interview, Documentary, Play, Advertisement, Writing for children, Writing for women, Writing for farmers
10	Television- <ul style="list-style-type: none"> • Principles of writing for television • Styles of programmers for television- News writing, Interview, Advertisement, Documentary • Social Marketing

References

1. Deflear and Dennis. Understanding Mass Communication, Houghton Mifflin co. 4th ed. Boston, 1983.
2. Dhama, O.P. and Bhatnagar. O.P. Education and Communication for Development, oxford and IBH Publishing Co., New-Delhi, 1987.
3. Dominic. The dynamics of Mass Communication, McGraw Hill Publishing Co., New-Delhi, 3rded, 1990.
4. Rao, B., fluvision for rural development. Concept Publishing Co., New-Delhi, 1992.
5. Joshi. V., Mass Communication and Media. Annual Publications Pvt. Ltd., New-Delhi, 1999.
6. Raidu. C.S., Communication, Himalaya Publishing House, Mumbai, 2009.
7. Arora. H., Writing for Media (Hindi). K.K. Publication, New Delhi, 2009
8. Shamsi. N., Journalism: Language and Expression, Anmol Publication Pvt Ltd. New Delhi, 2009

MASS MEDIA FOR DEVELOPMENT (PRACTICAL)

Paper Code: DCE911

Credits: 6

Max. Marks: 100

Teaching Hours: 3 Practicals /Week (3 Hours/Practical)

Teaching Workload: 45Practicals /Semester

Objectives-

To enable students to:

1. understand the functioning of various print media.
2. acquire skill of writing news for print media and script for Radio, Television and E-

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Newsletter.

Contents:

1. Prepare a scrap book of development related advertisement and news from the Newspaper
2. Design an advertisement on social issue for print media, radio and Television
3. Collect and exhibit news on development issues on bulletin board
4. Visit any media house and submit reports.
5. Write news and a feature for print media relating to Home Science issues.
6. Script writing for
 - Print
 - Radio
 - Television
 - E-newsletters

SCIENTIFIC WRITING (THEORY)

Paper Code: DCE C01

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

1. To be able to appreciate and understand the importance of writing scientifically
2. To develop competence in writing and abstracting skills for different writing needs
3. To develop the writing ability and to review different types of scientific literature

Contents:

UNIT- I

1. Overview of different types of scientific writing for-
 - a. Dissertation
 - b. Research Article/ Scientific paper
 - c. Abstract
 - d. Review paper
 - e. Reports and Monographs
2. Formulating outlines as a starting device and filling in the outlines-
 - a. Topic outline
 - b. Conceptual outline
 - c. Theme outline
3. Tables and illustrations and systematic means of presenting data-
 - a. Table, flowcharts, footnotes
 - b. Graph, diagrams.

UNIT- II

4. Components of scientific writing-
 - a. Introduction and objectives

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	<ul style="list-style-type: none"> b. Review of literature c. Methods and materials d. Results and discussion e. Summary and conclusion f. Limitations, recommendations and future Scope g. Bibliography/ References <ul style="list-style-type: none"> - Different types of writing styles- APA, MLA, Chicago h. Appendices
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UNIT- III

5 Preparing drafts and improving drafts for Scientific writing-

- a. Research Article/ Scientific paper
- b. Abstract
- c. Review paper
- d. Reports

6 Writing and presenting a research proposal for grants-

- a. Background information
- b. Justification
- c. Rationale and importance
- d. Pilot study
- e. Research proposal
- f. Time-frame
- g. Outcome of the study and its implications
- h. Budgeting
- i. Summary

References-

1. APA, Publication manual of American Psychological Association, 3rd Edition, Washington, 1984.
2. Cooper HM. Integrating research, A guide for literature review, 2nd Edition, Sage publications, California, 1989.
3. Dunn FV and others, Disseminating Research: Changing profile, Sage publications, 1994.

PSYCHOLOGY OF HUMANBEHAVIOUR (THEORY)

Paper Code: DCE C02

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives-

To enable students to –

1. understand the psychology of human behavior
2. develop a relationship between characteristics of human behavior and extension process
3. know the process of diffusion of innovation

Unit -I

1 Psychology: meaning, scope and importance in extension education

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2	Learning- Concept, elements of learning, learning situation , learning styles, Theories of learning, Principles of effective learning , types of learning, learning experience
3	Motivation: nature, characteristics, Maslow's theory of motivation and types of motives and motivation, motivating learners
4	Perception: Nature, types, selectivity in perception, sensory factors in perception, importance of perception in extension work

Unit -II

5	Defense mechanisms: Types and importance
6	Emotion: Nature, types of emotional response, role of emotion in regulating human behaviour
7	Thinking and Memory- Concept, factors and types of memory
8	Personality and individual differences, personality as a set of traits and personality as the self, characteristics, determinants, Roger's self theory, Maslow's self actualization theory.

Unit-III

9	Body language in communication- Concept, main aspects of body language, gestures, body movements, behavior, emotions, tone of voice, vibration and moods, advantages of learning body language
10	Group Behavior- Group behavior, classification of group, decision making in group
11	Process to adoption - Innovation, diffusion , adoption process and adopters categories
12	Attitudes- Meaning and characteristics, formation of stereotypes and prejudices, factors in attitude, factors guiding change in attitude

References-

1. Atwater E. Psychology for living: Adjustment, Growth and Behaviour Today. Prentice Hall of India, New Delhi. 1995
2. Back CR., Psychological factors at work: Recognition and control. ILO, Geneva Occupational Safety and Health Series No. 56., 1986
3. Back CR. Applying Psychology: Understanding People. Prentice Hall, Englewoods Cliffs, New Jersey. 1986
4. Baron, RA. Psychology. Prentice Hall of India, New Delhi. 1995
5. Chakraborty A. Social Stress Mental Health: A Social - Psychiatric field study of Calcutta. Sage Publication, New Delhi. 1990
6. Chattopadhyaya A. What's your emotional IQ. PustakMahal, New Delhi, 2001
7. Davar, Bhargavir and Parmeshvar Bhatt (1994). Psycho analysis as a Human Science beyond Fundamentalism. Sage Publications, New Delhi.
8. Morgan, CTK. and Robinson, NM. Introduction to Psychology. Tata Me. Graw Hill Publishing Co. New Delhi., 1979
9. Lewis H. Body Language. Response Books. A division of Gage Publication. New Delhi. 2000

CONTEMPORARY DEVELOPMENTAL ISSUES IN HOME SCIENCE (PRACTICAL)

Paper Code: DCE C11

Credits: 4

Max. Marks: 100

Teaching Hours: 3 Practicals /Week (3 Hours/Practical)

Teaching Workload: 30 Practicals /Semester

Objectives-

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To enable students to:	
<ol style="list-style-type: none"> 1. develop insights regarding the developmental issues of Home Science 2. acquires skills in collecting and organizing subject content on the selected topics 	
Contents:	
1	Each student will select one topic related to any of the stream of Home Science.
2	Present and discuss the topic in the classroom in form of abstract for approval
3	Prepare the seminar paper referring books, mono graphs, reports and websites and later professional journals.
4	Design effective presentations for the paper
5	Present final paper with the help of effective teaching aids in the class room
References:	
1. Refer available journals, research studies and abstract books	
DISSERTATION- I (PRACTICAL)	
Paper Code: DCE C12	
Credits: 6	
Max. Marks: 100	
Teaching Hours: 3Practicals /Week (3 Hours/Practical)	
Teaching Workload: 45Practicals /Semester	
Objectives :	
<ol style="list-style-type: none"> 1. To enable students to make and present a plan for research 2. Impart systematic and practical knowledge of research and its applied aspects 3. Develop scientist quality in student 	
Contents:	
1.	Identification, analysis and selection of research problem and its relevance collecting relevant review and research paper regarding the research problem.
2.	Synopsis writing and power point presentation <ul style="list-style-type: none"> • Introduction • Rationale of the study • Objectives • Review of literature (minimum 20 references should be cited) • Brief methodology • Plan of action • Bibliography
References:	
1. Refer available journals, research studies and abstract books	

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FOURTH SEMESTER

S. No.	Subject Code	Course title	Category	Credit	Contact Hours per week			EOSE Duration (Hours)	
					L	T	P	Th.	P
1	DCE X01	Extension Administration and Supervision	CCC	4	4	0	0	3	0
2	DCE X02	NGO Management	CCC	4	4	0	0	3	0
3	DCE X03	Information Communication Technology for Development	CCC	4	4	0	0	3	0
4	DCE X11	Information Communication Technology for Development	CCC	6	0	0	9	0	4
5	DCE D01	Rural Journalism	ECC	4	4	0	0	3	0
6	DCE D02	Gender Sensitization	ECC	4	4	0	0	3	0
7	DCE D11	NGO Placement	SSECC	4	0	0	6	0	1
8	DCE D12	Dissertation-II	ECC	6	0	0	9	0	1

CCC=18, ECC=18
Total=36

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FOURTH SEMESTER

EXTENSION ADMINISTRATION AND SUPERVISION (THEORY)

Paper Code: DCEX01

Credits: 4

Max. Marks: 100

Teaching Hours: 4Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

To enable students to:

1. understand the principles of administration, co-ordination and supervision.
2. be aware of the administrative structure of the rural development programmes in India.
3. understand basic elements in extension management.

Contents:

UNIT-I

- 1 Concept, meaning, nature and purpose of administration in extension and rural development
- 2 Public and private administration
- 3 Principles of administration and increase efficiency in administration
- 4 Organization- meaning, type, uses of centralization and decentralization in organization , scalar principle and span of control
- 5 Concept- meaning, characteristics of extension management.

UNIT-II

- 6 Authority and delegation of authority- need, principles and process of delegation of authority, differences between authority and power, factors effecting for building of an extension organization
- 7 Principles of management
- 8 Theories of management – scientific management theory, classical organization theory, the behavioral theory of management.

UNIT-III

- 9 Coordination – meaning , need and factors infusing coordination and achieving coordination
- 10 Supervision – meaning , principles and characteristics or traits desirable in extension supervisor
- 11 Administrative set up and function - administrative structure and functions of the rural development programme in India, MGNREGA, SGSY, PMGSY, ICDS, Mid-Day Meal programme etc

References-

1. Sharma D.P. Public Administration in Theory and Practice, KitabMahal Publication, Patna, Bihar, 1976.
2. Dahama, O.P. and Bhatnagar O.P. Education and Communication for Development. Oxford and IBH Publishing, New Delhi, 1980.
3. Mishra, S.N. and Verma, B.M. Evaluation of Training of Rural Youth for Self Employment (TRYSEM) in Rajasthan, 1982.
4. Desi, D.K. Management in Rural Development, Oxford and IBH, New Delhi, 1983.
5. Haq.M.C. Community Development through Extension, Chugh Publications, 1979.

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6. Dubhashi, P.K. Grammer of Planning – Concepts and Application, Indian Institute of Public Administration for and on behalf of the Training Division, Dept. of Personnel and Administrative Reforms, Govt. of India, 1983.
7. Fernandez, W. and Tandon, R. Participatory Research and Evaluation: Experiments in India as a Process of Liberation, Indian Social Institute, New Delhi, 1981.
8. Basavaprabhu, D., Handbook of Extension Education, Agrobios, Jodhpur, 2010.

NGO MANAGEMENT (THEORY)

Paper Code: DCE X02

Credits: 4

Max. Marks: 100

Teaching Hours: 4 Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

1. To enable students to understand and acquire skill to start and run a NGO

Contents:

UNIT- I

1. Meaning and genesis of NGOs, voluntary organization and civil societies.
2. Role of NGOs in development
3. Problems faced by NGO's
4. Start up of NGOs-Constitutional requirements, registration, infrastructural creation

UNIT- II

5. Creation of funds.
6. External and Internal – donor agencies- national and international.
7. Strategic Planning and implementation of development programmes in different areas of operation.

UNIT – III

8. Government policies and programmes for NGOs
9. Agencies involved in training of NGOs-NIRD, NIPCCD, CAPART, CARPET etc.
10. Documentation and report writing

References :

1. Bhatia, A. *Women's Development and NGOs*. Published by Rawat Publications, Jaipur, 2000.
2. Fisher, J. *Nongovernments: NGOs and the Political Development of the Third World*, Kumarian Press, West Hartford, 1998.
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INFORMATION COMMUNICATION TECHNOLOGY FOR DEVELOPMENT (THEORY)

Paper Code: DCEX03

Credits: 4

Max. Marks: 100

Teaching-Hours: 4 Hours /Week

Total Teaching Workload: 60Hours /Semester

Objective:

1. Create awareness among students about ICT and its application for education and development.
2. Understand the inter-relationship of different ICT's

Contents:**UNIT- I**

- 1 Concept, meaning and definition of Information Communication Technology
- 2 Characteristics and nature of Information Communication Technology
- 3 Educational technology – meaning, scope and nature
- 4 ICT and education
- 5 Role of ICT in education, extension and development
- 6 ICT for adult education
- 7 Instructional design- meaning, benefits of instructional design
- 8 Steps of instructional design-
 - analyze learners
 - state objectives
 - select, modify and design material
 - utilize materials
 - evaluation

UNIT-II

- 9 Processes related with ICT
 - Process related to teacher
 - i. awareness to technology
 - ii. adoption of innovation
 - iii. competency to technology
 - iv. capabilities of technology
 - Process related to learner
 - i. learners cognitive style
 - ii. learning style
 - Spectrum of instructional ICT-
 - i. behaviorist instructional technology
 - ii. cognitive instructional technology
 - iii. constructivist instructional technology
- 10 Psychological principles of ICT- factors affecting and factors facilitating ICT learning
- 11 Computer's as tool of ICT-
 - computers for education and development- hardware, features and parts
 - classification according to- types, purpose and based on configurations/ memory type
 - components of computers (only elementary idea)-

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- inputs and output hardware devices- CPU, key board, pointing device, scanner, image capturing device, combination of input and output device, monitor, printer, smart board, disc drive, CD Rom, projectors
- elementary idea of software device- operating device, utilities, word processor

UNIT-III

- | | |
|----|---|
| 12 | Application of computers for development- Concept
Computer assisted instruction (CAI)- instructional mode of CAI (tutorial, drill and practice, simulation mode, discovery, gamin and dialogue), characteristics of CAI, uses and preparation of CAI material, evaluation of CAI material
Computer assisted learning (CAL)- characteristics and variety
Computer based training (CBT)
Computer managed learning (CML) |
| 13 | Classification of ICT |
| 14 | Internet – history, internet as global village, internet and education, advantages of internet, uses/functions of internet
Internet tools search engine and browser, assessing and sorting educational material, chat , e-mail, blog , voice mails and their use for education |
| 15 | Extranet- concept
Synchronous and asynchronous modes of internet communication – relationship of communication process with ICT |
| 16 | Teleconferencing- audio and video conferencing, data conference/ text conferencing |
| 17 | Satellite in communication- videoconferencing and its technological aspects, channels of video conferencing, kinds, process, advantage and limitations |
| 18 | Educational portal- objectives, target groups and uses |
| 19 | Online learning and online evaluation |

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**INFORMATION COMMUNICATION TECHNOLOGY FOR DEVELOPMENT
(PRACTICAL)**

Paper Code: DCE X11

Credits: 6

Max. Marks: 100

Teaching Hours: 3 Practicals /Week (3hours/practical)

Teaching Workload: 45Practicals /Semester

Objectives :

To develop skills in the students regarding-

1. designing educational portal.
2. preparing power point presentations.
3. preparing social advertisement for radio and Television

Practical

- | | |
|---|--|
| 1 | Collect, discuss and prepare a resource file containing at least ten Information Communication Technology techniques and new media- functioning, parts, advantages and disadvantages to understand their scope |
| 2 | Collect some appraisal reports on role of ICT and new media used by different organization as a tool of development |
| 3 | Visit to electronic media centre |
| 4 | Utilization of ICT for effective communication <ol style="list-style-type: none">1. Content writing and designing and evaluation of material designed for ICT and new media2. Designing portal3. Formal communication techniques using ICT and New media4. Preparation and presentation using ICT and new media5. Evaluation using ICT and new media |
| 5 | Measurement and analysis of the ICT Development Index for India and other countries and its implications. |

RURAL JOURNALISM (THEORY)

Paper Code: DCE D01

Credits: 4

Max. Marks: 100

Teaching Hours: 4Hours /Week

Total Teaching Workload: 60 Hours /Semester

Objectives:

To enable students to understand-

1. the basics of journalism and develop a relationship of development and journalism
2. the challenges of development from the journalistic perspective
3. the relevance and advocacy to promote development journalism

Content

UNIT I

- | | |
|---|--|
| 1 | Journalism- concept, types, terminology and commandments |
| 2 | Journalist- concept , role and responsibilities |

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3	Collection and transmission of journalistic information
4	Rural Journalism - nature, scope, importance, structure of villages, various problems or rural development, challenges of rural journalism, advances in farm or rural journalism
5	Development journalism- concept and challenges
6	The media- Press, Radio and Television
UNIT II	
7	News: definition and type, news value, qualities of good writing elements of news, 5W and 1H concept of news structure of news story: introduction, body (Inverted Pyramids) etc. news gathering and sources of news, qualities of reporter
8	Headline: meaning, significance
9	Writing styles for news paper - Interview, Book review, Film Review, Feature- types and Characteristics, News article, Letter to the editor, Reporting a success story, Cartoons
UNIT III	
10	Photo journalism- principles and practices
11	Advertisement and Social marketing - concept, characteristics and concept, characteristics, and role of advertisement
12	Editor- editor, role and responsibilities, editing symbols and editorial department
13	Public relations- concept, principle, scope and methods
14	Media research methods- researches for print and electronic media
15	Technology advances in journalism
References	
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GENDER SENSITIZATION (THEORY)

Paper Code: DCED02

Credits: 4

Max. Marks: 100

Teaching Hours: 4Hours /Week

Total Teaching Workload: 60Hours /Semester

Objectives-

To enable students to:

1. sensitize students about gender issues
2. develop a gender eye about social and economic status of women

Contents:

Unit- I

1. Socialization: meaning, definition and stages
2. Social construction of gender- sex and gender, gender discrimination, gender stereotyping, gender roles and gender needs- practical and strategic
3. Factors influencing gender differences in health, education, occupation, resources and socio cultural practices
4. Issues related to women- divorce, widowhood, female commercial sex worker.
5. Domestic violence : types and incidences
6. Problems of elderly and single women
7. Empowerment- need, importance, social aspects of women empowerment transition of women towards new millennium

UNIT- II

8. Women and livelihood- Women in informal work and women in employment : opportunities and limitations
9. Gender budgeting and gender eye
10. Gender and poverty alleviation
11. Women and microfinance
12. Social safety for women in workplace
13. Status of girl child in India and Rajasthan

UNIT-III

14. Sex ratio, nutritional status and educational status
15. Practices limiting women's development : child marriages, dowry, female feticide
16. Obstacles to women education
17. Education as a tool of women empowerment.
18. Technologies and empowerment- gender specific technologies, household technologies interface, social – cultural interface and women as consumer of technologies

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NGO PLACEMENT (PRACTICAL)

Paper Code: DCE D11

Credits: 4

Max. Marks: 100

Teaching Hours: 2 Practicals /Week (3 Hours/Practical)

Teaching Workload: 30 Practicals /Semester

Objectives-

To enable students to develop skills of working with development organizations

Contents:

1. Students will be placed in various NGO's to study and acquire skills about following-
 - Profile of NGO
 - Administrative structure
 - Area of work
 - Projects Undertaken
 - Finance and Funding
2. Students will prepare and present the report in the class

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DISSERTATION II (PRACTICAL)

Paper Code: DCE D12

Credits: 6

Max. Marks: 100

Teaching Hours: 3 Practicals /Week (3 Hours/Practical)

Teaching Workload: 45Practicals /Semester

Objectives :

1. To enable student to write and present thesis
2. To impart systematic and practical knowledge of research and its applied aspects
3. To develop scientist quality in student

1. Data collection, analysis and interpretation of data in form of graphs, charts, tables and others
2. Thesis writing and presentation I
 - Introduction
 - Review of literature
 - Materials and methods
 - Result and discussions
3. Thesis writing and presentation II
 - Conclusion
 - Summary
 - Bibliography
 - Annexures
4. Writing and submission of one research paper based on conducted research findings

References:

Refer available journals, research studies and abstract books

Pre-requisite: A student has to clear Dissertation I in IIIrd Semester to be eligible for Dissertation II in IVth Semester.

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